PALAU
COMMUNITY
COLLEGE

"We Guarantee Quality and Excellence"

PalauCommunity 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 Program

Palau Community College
Information Technology Program
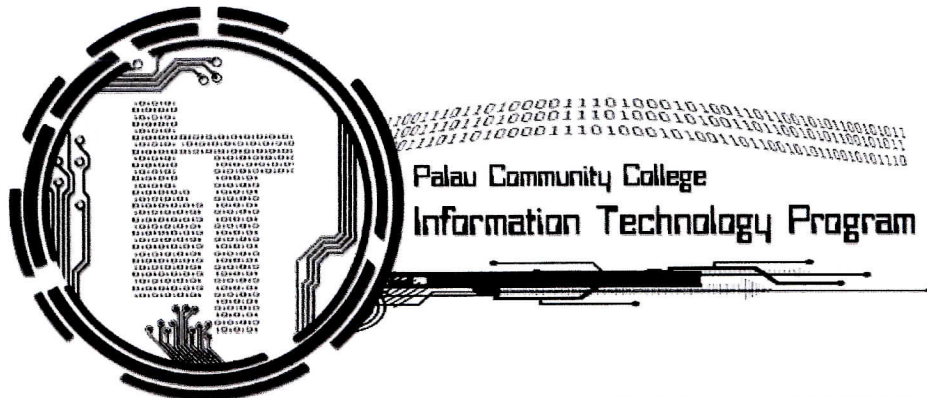
| **Information Technology** |

Period of Three Year Review
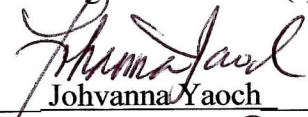
| **Fall 2012 to Summer 2015** |

Completed By: _____Johvanna Yaoch_____   Date: 2/1/2016
                     Program Instructor(s)

Program/Department Chair: _____Johvanna Yaoch_____   Date: 2/1/2016

Dean of Academic Affairs: _____Robert Ramarui_____   Date: 2/1/2016

IREO received by: Ligaya Sara [signature] 02/02/16

Program Review Narrative Summary

The narrative summary should include the following:

- **Summary of the academic program purpose**

  There have not been any changes to the Information Technology (IT) program description or purpose since the last IT program review that covered fall 2009 to summer 2012. As stated in the 2012-2016 Palau Community College (PCC) General Catalog, "The Information Technology program is designed for individuals interested in professional careers in the information technology field. The program provides basic knowledge and skills needed for employment or for the pursuit of a higher education in the field of information technology."

  The primary objective or goal of the IT program is to present to students with a general overview of IT. Through the IT courses, students will have the opportunity to learn different areas or disciplines within the IT field ranging from basic to advanced office application use to designing and developing websites and computer programs. The program will introduce students to the following areas:

  - ➢ Office Applications
  - ➢ Operating Systems
  - ➢ Network Administration
  - ➢ Database Management and Design
  - ➢ Computer Programming
  - ➢ Website Management and Design
  - ➢ Troubleshooting Computer Systems

  The IT courses are designed to help introduce students to different areas of the field, thereby, enabling the students to utilize the acquired education and training in finding employment after graduation or in pursuinga higher education in the field.

- **The relationship of program to the college Mission Statement**

  The IT program aligns with and continues to support the mission of the College.

  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 IT program supports the PCC Mission statement as it helps to meet the technical, academic, cultural, social, and economic needs of students and communities by promoting learning opportunities and developing personal excellence. The IT program helps meet the **technical and academic** needs of students by providing computer technology, software, and other related tools as well as instructions to help student gain the experience and skills in the field. Additionally, qualified faculty oversee IT courses geared specifically for program majors ensuring that

students receive the necessary skills and experience to enable them to find employment after graduation or pursue higher education in the field. The IT program helps meet the **cultural** needs of students in the field by exposing them to the culture of information technology and allowing them to explore and discuss how the evolution of technology has molded and influenced our cultural beliefs and way of life today. Students are given the opportunity to learn the history of different technologies as well as different theories, methods, and techniques used by professionals in the field. As a result, students learn to appreciate the evolution and culture of technology as well as have the opportunity to apply what they learn in activities and projects assigned during their studies as IT majors. The IT program helps meet the **social** needs of students by giving them the opportunity to work with clients on course field related projects. Throughout their study as IT majors, students are paired with clients to plan, design, develop, or assist in various field related projects such as website development, software development, and database development. Such exposure not only helps improve students' social and communication skills but also helps them become more confident in their skills as well as build connections with individuals and organizations that may help them when they begin to seek employment. The IT program helps meet the **economic** needs of students by providing them the opportunity to learn necessary skills and obtain experiences needed to find employment after graduation or pursue a higher education in the field. The IT program **promotes learning opportunities for students and communities**and **developing personal excellence** by hiring qualified faculty to teach courses and oversee the entireIT program. Additionally, as part of theIT courses specifically for IT majors, students are given the opportunity to work with clients in the community. Such activities promote learning opportunities for students and communities as well as develop personal excellence.

- **Summary of Program Data**

   a. **Figure 1 – Student Status**

Status	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Enrollment	77	64	0	68	82	0	46	64	1
Pass/Credit	86%	83%	0%	78%	77%	0%	72%	80%	100%
Fail/No Credit	4%	13%	0%	10%	10%	0%	20%	14%	0%
Audit	0%	0%	0%	0%	0%	0%	0%	0%	0%
Withdraw	10%	5%	0%	12%	13%	0%	9%	6%	0%

The table above (tabular view of Figure 1) represents the total and average student enrollments in all IT courses as well as the number of students who passed, failed, audited, and withdrew from the courses. The difference between the passing and failing rates of students indicate that more students successfully passedIT courses. No students enrolled in IT courses as auditing students while a handful withdrew for various reasons.

Summer 2013 and summer 2014 indicates 0 enrollments because IT courses are rarely offered in the summer. If they are, then it is usually either internship for graduating IT students. For example, in the summer of 2015, one student enrolled in the internship course and successfully completed the course. Other IT courses such as IT105: PC Office Applications and IT200: Intermediate PC Office Applications may be offered when there is a need as these courses are required by other programs.

Overall, the data indicates that majority of the students enrolled in IT courses successfully completed the courses.

b. Figure 2 – Number of Graduates

Semester	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
AS/AA	0	2	0	0	1	0	0	2	1
AAS	0	0	0	0	0	0	0	0	0
CA	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**2**	**1**

The table above (tabular view of Figure 2) illustrates the number of students who have successfully completed and received an Associate of Science degree in IT. Enrollment into the IT program has been consistently low and, as a result, graduation rate is low. The reasoning behind the low enrollment is unknown; however, it is important to note that the overall student enrollment into the College has been consistently declining. It is also important to note that the program has built a reputation as alumni of the program have participated in as well as developed projects that have been demonstrated within the College community, the local community, regionally, and internationally. Additionally, IT instructors and students have been actively involved in the annual Career and Technical Awareness Week to promote the program as well as recruit potential students. As such, it may not be reflected in this review, however, it is anticipated that the next review will show some increase in the number of students enrolling into the IT program as well as graduate rates.

Looking at figure 1 and figure 2 can be a bit confusing, however, is imperative to understand that the data under (a) indicates the total enrollment in all IT courses. Other programs require their students to take IT105: PC Office Applications and IT200: Intermediate PC Office Applications, which increases the total enrollment for IT courses. However, very few students declare IT as their major. The reasons behind this are still unknown, however, as stated previously, it is anticipated that there will be an increase in enrollment and graduate rates. Such increase will be reflected in the next program review.

c. Figure 3 – Class Information

Class Size	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Under 10 Students	63%	80%	0%	50%	67%	0%	86%	63%	100%
10 – 19 Students	38%	10%	0%	50%	11%	0%	14%	38%	0%
20 – 29 Students	0%	10%	0%	0%	22%	0%	0%	0%	0%
30 or more Students	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Classes	**8**	**10**	**0**	**8**	**9**	**0**	**7**	**8**	**1**

The table above (tabular view of Figure 3) shows the average class size for IT classes. It is evident that majority of the classes have under 10 students. This is largely due to the

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fact that the total number of IT majors is low. As a result, courses for IT majors only usually has anywhere between 1 to 9 students. Classes with 10 to 20 students are usually courses which are required for other majors and, as a result, the enrollment is higher.

Summer 2013 and summer 2014 indicates that there were no IT classes offered and this is because the course scheduling proposed as part of the IT program does not list any summer IT courses. Courses offered in the summer are usually either internship for graduating IT students and, in very rare instances, IT105: PC Office Applications and/orIT200: Intermediate PC Office Applications which are required by students in other programs to graduate.

d. **Figure 4 – Class Offering Information**

Class Type	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Total Prog/Dept Classes Taught	8	10	0	8	9	0	7	8	1
Total Lecture ONLY Classes	25%	20%	0%	25%	22%	0%	29%	25%	0%
Total Lab ONLY Classes	0%	10%	0%	0%	11%	0%	0%	13%	100%
Total Lecture and Lab Classes	75%	70%	0%	75%	67%	0%	71%	63%	0%
Total Online Classes	0%	0%	0%	0%	0%	0%	0%	0%	0%

The table above (tabular view of Figure 4) illustrates the number and type of IT classes offered. Majority of the IT classes offered were lecture and lab courses. Such courses enable students to not only learn the terminologies, concepts, and theories in relation to the courses but also be able to apply the skills acquired in the form of activities, exercise, and/or projects.

IT courses that are lecture only includes IT110: Introduction to Programming, IT115: Operating System and Networks, IT120: Database Management Systems, and IT220: Troubleshooting Microcomputer Systems. Such courses require ample time for students to familiarize themselves with various computer jargons and terminologies as well as the concepts, theories, techniques, and methodologies used in the field in relation to the course. Students also have the opportunity to apply or practice the knowledge and skills acquired in the form of hands on activities, exercises, and/or projects.

IT courses that are lab only courses include IT222: Instructor Directed Practicum (formerly titled Service Learning) and IT223: Internship. These courses provide students the opportunity to apply or practice the knowledge, skills, and training acquired through all IT courses. With the internship, students are assigned to an organization in which they will practice their skills as well as acquire more knowledge and training in the field. In the Instructor Directed Practicum, students are given the opportunity to work on various projects for the College, community, and private and public organizations with the supervision of a program faculty. The students can begin working on projects as early as their first semester as an IT major. However, in order to successfully complete

IT222 and graduate from the program, students must successfully complete the same number of hours required for the internship.

e. **Figure 5 – Faculty Information**

	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Full Time Faculty	1	1	0	1	1	0	1	1	0
Part Time Faculty	2	3	0	2	3	0	3	2	1
Total Faculty	3	4	0	3	4	0	4	3	1

The table above (tabular view of Figure 5) represents the number of full time and part time faculty that teachesIT classes. Currently, there is only one full time IT faculty. This faculty heads the IT Program as well as teaches all IT courses for IT majors only. However, because there are some IT courses that are required for students in other areas, the college hires or assigns part time and/or adjunct faculty to help teach those courses.

f. **Table 1 – Faculty to Class Size Ratio Information**

Ratio	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Full Time Faculty (F : S)	1:51	1:10	0:00	1:40	1:26	0:00	1:20	1:26	0:00
Part Time Faculty (F : S)	1:13	1:18	0:00	1:14	01:18.7	0:00	1:13	1:18	1:1

The table above (same as Table 1. Faculty-Class Size Ratio (program headcount)) shows the ratio of faculty to students per semester. Ratio of faculty to students per semester ranges from as low as 1 faculty to 1 students (1:1) per semester to as high as 1 faculty to 51 students (1:51) per semester. However, it is important to note that the numbers do not represent the ratio of faculty to class size but rather faculty to students per semester as some students are enrolled in more than one IT course. To view the numbers as being the ratio of faculty to class size would be misleading as the numbers may be higher than they really are. For example, the table indicates that in Spring 2014, the full time faculty to studentratiowas 1:26. If John is enrolled in 2 IT courses then John is counted twice. As a result, the numbers may accurately represent the faculty to student ratiowith the understanding that there willbe some redundancy in the number of students.

- **Summary of Student Learning and Curriculum**

There are a total of 12 IT courses offered here at the College. All 12 courses have CLOs. The course outlines and documentations for all 12 courses are up to date, however, this spring 2016 semester, all IT courses will have to undergo the standard 3 year update. Though it is anticipated that no changes in the course outlines and documentations will be made, the standard 3 year update will give the program instructors the opportunity to thoroughly review all IT course outlines and other related documentations and make necessary changes.

Additionally, as stated in the previous review, all course CLOs have been aligned with PLOs and ILOs in the mapping template. Signature assignments used in course assessments have also been identified and are currently being used to assess IT courses. The list of signature assignments is continually being reviewed by program instructors and adjustments are made to better assess courses.

- **Summary of Course Assessment Data**

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

    As stated in the previous program review, the IT program initially had 4 PLOs. After careful consideration, a 5th PLO was added to represent all aspects of IT covered in the IT program. Below are the current IT program PLOs:

    1. Student will plan, design, and develop a **computer program** demonstrating an understanding in the following: process of flowcharting programs, process of pseudocoding and documenting programs, process of writing computer programs using a programming language and applications, and the process of compiling and debugging programs.

    2. Students will create various documents and files demonstrating a thorough understanding in using various **office applications** such as utilizing advance features of word-processing, presentation, spreadsheet, and database applications.

    3. Students will propose, plan/design, and create a **web-based** project to demonstrate an understating in the process of writing project proposals, process of planning and designing web-based applications, different web supported programming languages, process of uploading and managing web applications, and an understanding in computer networking and protocols.

    4. Students will propose, plan/design, and create a computer network to demonstrate an understating in the process of identifying different hardware, determining hardware compatibility, process of planning and designing computer **networks**, and the process of **troubleshooting** networking and other computer related problems.

    5. Students will propose, plan/design, and create a **database** to demonstrate an understating in the basic principles of database design including the development of data models, establishment of entity relationships, determine appropriate degree of normalization, identify and define special keys, and addressing access and security concerns.

    b. **How has assessment of program-level student learning outcomes led to certificate/degree program improvements?**

    Even though the IT program has set its PLOs, the PLOs themselves are not assessed independently. The program's PLOs identify the focus or goals of the program whereas such learning outcomes are assessed at the course level. For example, the courses that satisfy PLO 1, upon their assessment, PLO 1 will have been assessed. This set up or assessment model ensures that the PLOs are continuously being assessed when program courses are offered and assessed. Necessary changes are made based on assessment

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results as well as reviews of program and course documentations. Such changes that have been made are:

1. Recommending to IT instructors (fulltime, part-time, and adjuncts) topics that need to be emphasized more to improve student proficiency.

2. No longer hiring specific adjuncts to teach IT courses.

- **Summary of Evaluation of Previous Goals/Activities from Previous Cycle (Figure 5)**
    1. **List actions identified in your last program review or any other related plan(s).**

        - Review and update course outlines, CLOs, and other documentations. Status: Ongoing

        - Review and update program documentations. Status: Ongoing

        - Search for grants to help support the IT program. Status: Ongoing

        - Hire an additional qualified fulltime IT faculty. **Status: Incomplete**

        - Professional development. Status: Ongoing

        - Upgrade IT computer laboratory classroom computer and necessary hardware. Status: Ongoing

        - Upgrade IT computer laboratory classroom software. Status: Ongoing

        - Research and experiment with open source software. Status: Ongoing

        - Recruitment of students into the IT program. Status: Ongoing

    2. **What measurable outcomes were achieved due to the actions completed?**

        Majority of the action plans in the previous review were ongoing plans. This was largely because the important action plans identified in earlier reviews were completed. Such critical plans that were completed are as follows:

        - Ensure that the IT computer laboratory classroom is properly wired and has the electrical capacity to support program equipment.

            ➢ The IT computer laboratory classroom was relocated to Btaches building room 68 in Fall 2011. Prior to the relocation, room 68 was renovated to ensure proper wiring and electrical support. Proper wiring and electrical support is evident in that now students and faculty are no longer experiencing electrical problems that may cause fire, computer malfunctions, or sudden power shutdowns. Additionally, the new lab no longer use extension cords which were

used in the previous lab to try and power all computers as sufficient electrical outlets were put in place before the relocation. The use of extension cords as a result of limited electrical outlets was not only a fire hazard but also a safety issue.

- Relocate the IT computer laboratory classroom to a more secure and easy to maintain/manage location on campus.

  - ➢ The IT computer laboratory classroom was relocated to Btaches building room 68 in Fall 2011. Prior to relocation, renovation work done in room 68 included a permanent wall separating room 68 and 69. Such wall was necessary to ensure the security of the lab's equipment. Additionally, due to the location Btaches building, the IT computer laboratory classroom is now located in an area that is frequently monitored by campus security guards.

  - ➢ After relocation, the lab was furnished with new computers and software to support ongoing IT program courses. Because the lab is currently located right above the IT faculty's office, it is now easier for the faculty to monitor, maintain, and manage the lab and equipment.

The ongoing plans are continuously being reviewed and work is being done to continue to meet those plans.

3. **Evaluate the success of the completed actions. Did the completed actions lead to improvement of student learning?**

As stated in the previous section, majority of the action plans in the previous review were ongoing plans. This was largely because the important action plans identified in earlier reviews were completed. Such critical plans included the installation of proper electrical wiring in the IT lab and the relocation of the IT lab to a more centralized and secure location. The relocation of the IT computer laboratory classroom to Btaches building as well as the installation of proper wiring and electrical support in lab improved student learning by allowing for uninterrupted teaching and learning.

4. **What modifications do you plan to make to the program in the future to improve student learning?**

The plans that need to take place to ensure continuous support of student learning includes:

- Continue to assess courses.

  - o This plan ensures that course delivery, course objectives, and course content continue to align with course description as well as ensures that students are acquiring the knowledge, skills, and experience needed to succeed in the IT courses and the IT program.

- Continue to review and update course outlines, CLOs, and other documentations.

- o This plan ensures that all course outlines are up to date and that they are aligned with the CLOs, PLOs, and ILOs.

- Continue to review and update program documentations.

  - o This plan ensures that all program documentations are up to date including the PLOs and that they are aligned with the ILOs.

- Continue to search for grants to help support the IT program.

  - o This plan supports the College's effort to provide the necessary hardware and software to support the IT program.

- Hire an additional qualified fulltime IT faculty to assist in teaching program courses.

  - o This plan ensures that qualified faculty teaches IT courses whereas ensuring that students are receiving quality instruction.

  - o There is a need to hire another qualified fulltime IT faculty to assist in teaching IT and CS courses. The faculty needs to have at least a bachelor's degree in IT, CS, or a related field. Such need is evident as the College struggles to find qualified instructors to teach IT and CS courses offered every semester.

- Support professional development for IT faculty.

  - o This plan ensures that IT faculty are up to date with the latest in the IT field, and in turn, students are exposed to such knowledge and skills.

  - o Professional development such as workshops, conferences, and trainings in computer related topics is necessary to allow IT faculty to keep up with the fast paced and constantly changing technological world. Professional development needed are in the areas of:

    - Computer Programming, Database, and Web Languages such as Visual Studio, PHP, Java, HTML, CSS, and SQL.
    - Database Management Systems, Database Design, and Database Administration
    - Computer Networking, Network Design, and Network Administration
    - Troubleshooting Computer Problems in the areas of both software and hardware
    - Web Design
    - Moodle and other Learning Management Systems
    - Content Management Systems such as Drupal, Joomla, and WordPress
    - Open Source Software

- Teaching Methods

- Upgrade IT computer laboratory classroom computer and necessary hardware.

  - Continuously assessing, upgrading, repairing, and replacing, when necessary, the computers and hardware in the IT lab is critical in supporting student learning outcomes as well as teaching. It ensures that adequate computers and necessary hardware are available for students and faculty teaching IT courses.

- Upgrade IT computer laboratory classroom software.

  - Continuously assessing, upgrading, and replacing, when necessary, the software installed in the computers in the IT lab is critical in supporting student learning outcomes as well as teaching. This ensures that necessary software are available for students and faculty teaching IT courses.

- Continue to research and experiment with open source software.

  - This provides other alternative software for IT faculty and students to use. This plan promotes student learning as well as teaching.

- Recruitment of students into the IT program.

  - This ensures that effort is being made to recruit students into the IT program, thereby, helping to increase the enrollment and the graduation rates of the program.

5. Update major changes/accomplishments since the last review.

- In September 2013, a JICA volunteer was assigned to PCC to help teach IT courses. The volunteer assisted in teaching several IT courses. Additionally, the JICA volunteer's experience in the IT field brought a different perspective and approaches in the delivery of the courses. As such, the IT faculty and the students learned so much from the volunteer. Unfortunately, the JICA volunteer's contract ended in December 2015 and the program is now back to only one primary IT faculty.

- The IT teaching assistant that was hired to assist in course instruction as well as maintaining and managing the IT computer laboratory classroom as well as other computer labs was relocated to the College's Computer Services Division and is now a computer technician for the entire campus. As such, the IT program no longer has a teaching assistant and the program is now back to only one primary IT faculty and no assistant.

- All IT courses continue to be assessed every time they are offered to ensure that all CLOs are being met. In the event that a CLO is not met, action plans are established to improve student performance and increase proficiency level.

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- **Summary of Program Major Strengths**

The IT program is designed to allow students to explore various specialties in the IT field. Such approach gives students the opportunity to work on projects in various areas in the field and hopefully be able to choose their area of interest. Identifying their area of interest will allow students to build upon knowledge that they acquire in the classroom during Internship or Instructor Directed Practicum

Below are some examples of projects that students enrolled in IT courses have had the opportunity to participate in from fall 2012 to summer 2015:

Computer Programming:
- Quiz games written in Visual Basic that can be used by elementary and high school teachers to emphasize concepts covered. (*Illustration 1.1, 1.2, 1.3*)
- Quiz games written in PHP that can be used by elementary and high school teachers to emphasize concepts covered. (*Illustration 2.1, 2.2, 2.3*)
- Quiz games written in PowerPoint that can be used by elementary and high school teachers to emphasize concepts covered. (*Illustration 3.1, 3.2, 3.3*)
- Android apps developed using Adobe Flash's ActionScript that can be used by elementary and high school teachers to emphasize concepts covered in relation to the Palauan subject. (*Illustration 4.1, 4.2*)
- Custom virus cleaner/healer written in Visual Basic that is currently being used to scan and fix the infamous shortcut virus related problems students, faculty, and staff encounter. (*Illustration 5.1*)
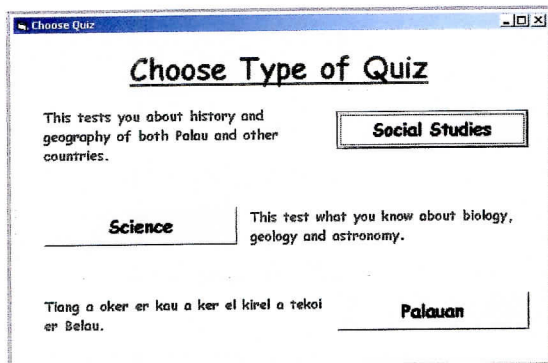
Illustration 1.1 Quiz in Visual Basic (quiz selection)
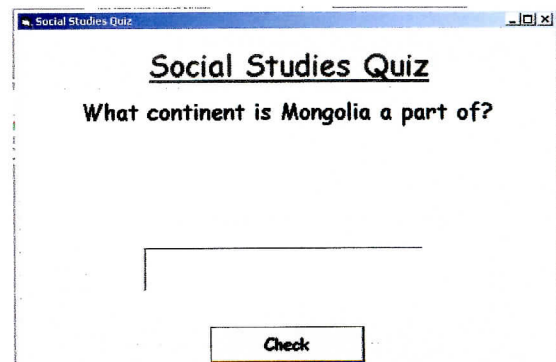
Illustration 1.2 Quiz in Visual Basic (actual quiz)
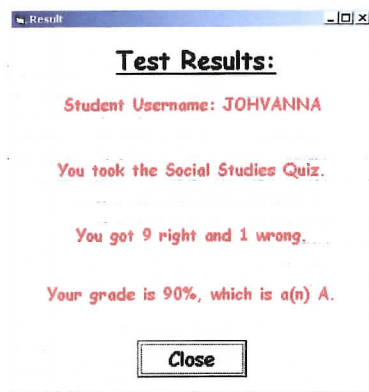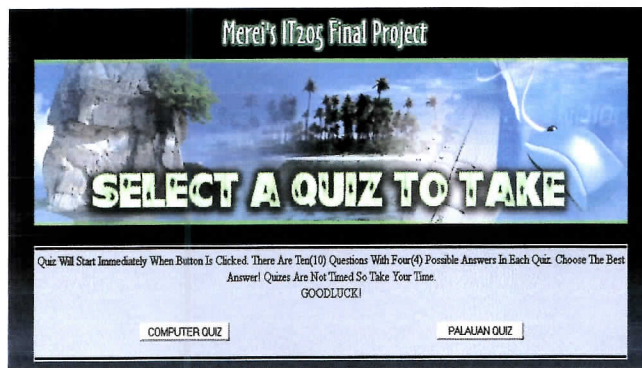
Illustration 1.3 Quiz in Visual Basic (quiz result)

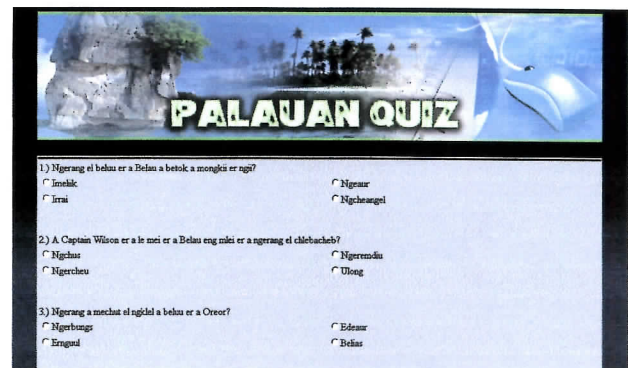

Illustration 2.1 Quiz in PHP (quiz selection)

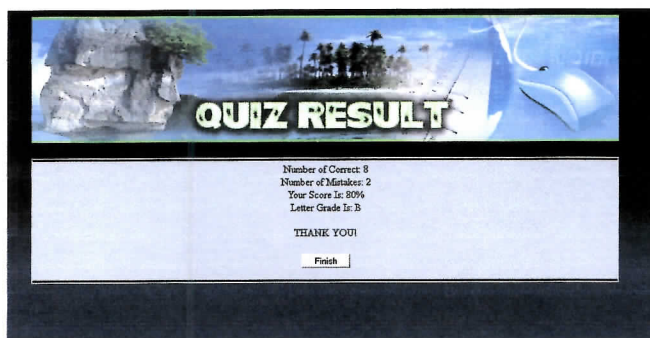**Illustration 2.2 Quiz in PHP (actual quiz)**

Illustration 2.3 Quiz in PHP (quiz result)
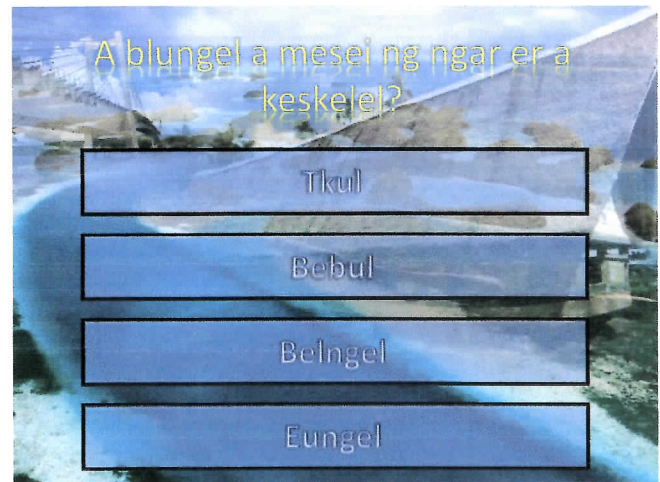
Illustration 3.1 Quiz in PowerPoint (quiz selection)

Illustration 3.2 Quiz in PowerPoint (actual quiz)
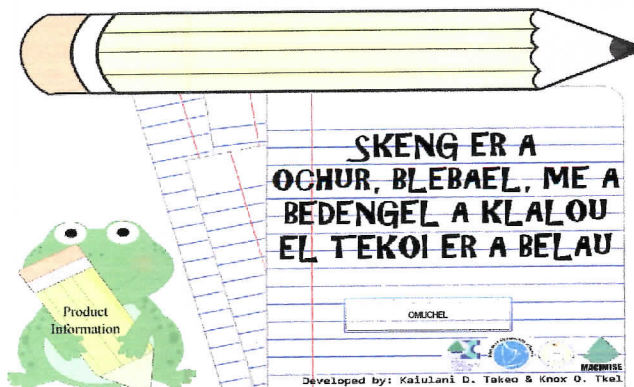

Illustration 3.3 Quiz in PowerPoint (quiz result)

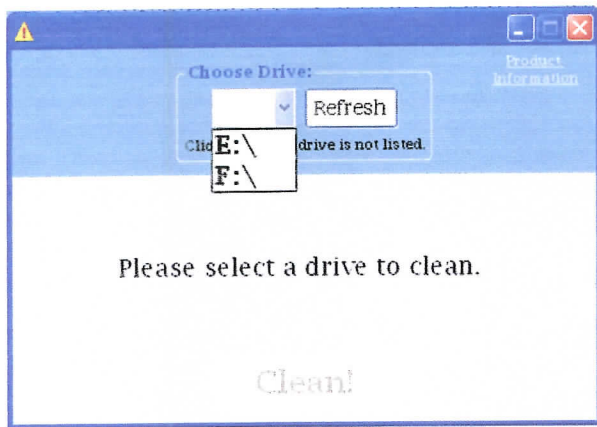**Illustration 4.1Custom Android App**

Illustration 4.2Custom Android App

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Illustration 5.1 Custom Virus Cleaner/Healer

Microsoft Office Applications:

- Quiz games written in PowerPoint that can be used by elementary and high school teachers to emphasize concepts covered. (*Illustration 6.1, 6.2, 6.3, 6.4*)
- Developing user manuals in Word (e.g. PCC Course Assessments Action Plan Tracking System Manual). (*Illustration 7.1, 7.2*)
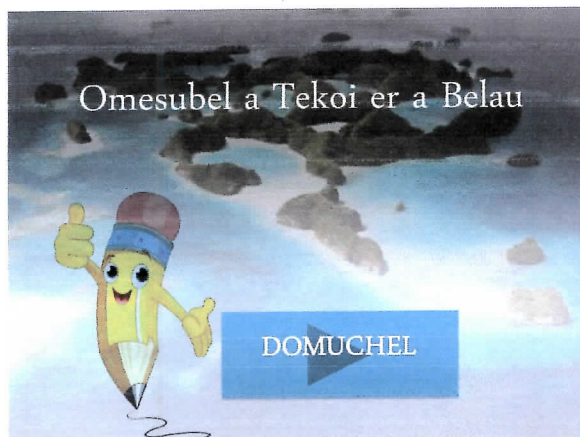- Binary Calculators in Excel. (*Illustration 8.1*)

Illustration 6.1 Quiz Game in PowerPoint (start screen)

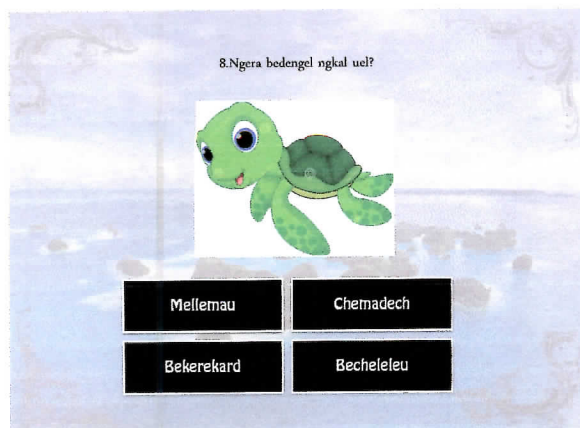**Illustration 6.2 Quiz Game in PowerPoint (category selection)**

Illustration 6.3 Quiz Game in PowerPoint (actual quiz)
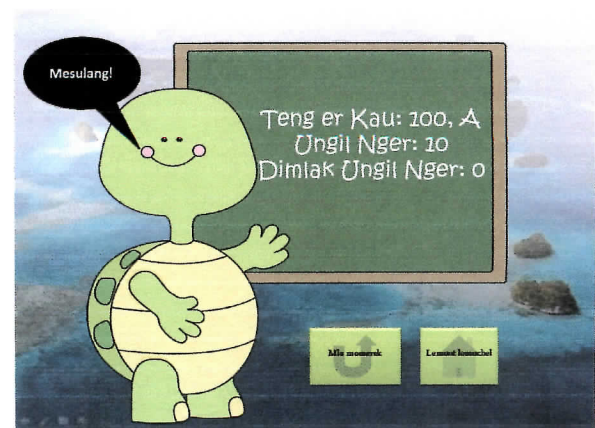

Illustration 6.4 Quiz Game in PowerPoint (quiz result)

What is CAAPTS?

The Course Assessment Action Plan Tracking System (CAAPTS) is a custom database used to track or monitor course assessments with action plans. CAAPTS was designed and developed by Tahira "Wyn" Ewatel, Landon "Ond" Decherong, Knox "Odeu" Tkel, and Kaiulani "Mewes" Takeo.
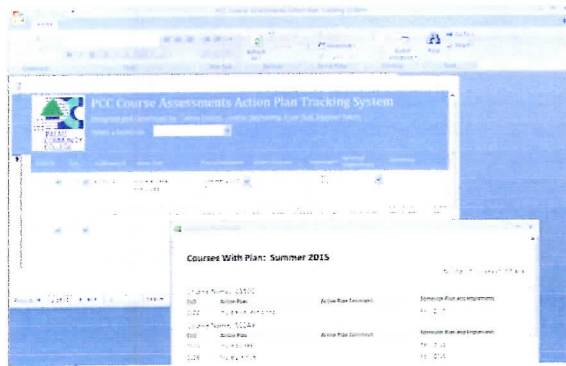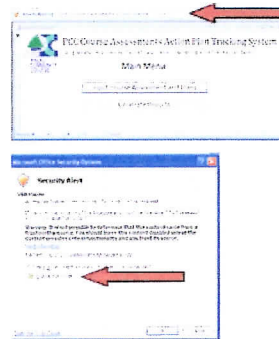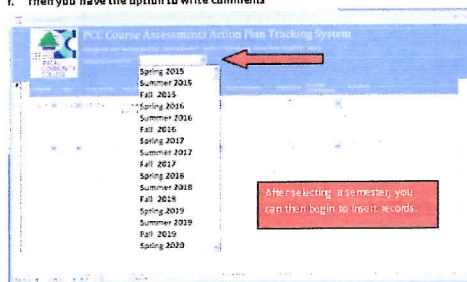
How to open CAAPTS

1. Double click CAAPTS icon.
2. Enable macro.
   a. Click the Security Warning Options button.
   b. Select Enable This Content option.
   c. Click Okay.

How to use the Main Menu

Illustration 7.1 PCC Course Assessments Action Plan Tracking System Manual in Word

How to input course assessments and plans

1. CLICK "Input Course Assessment and Plans" on the main menu
2. Select a Semester
3. Start inputting records
   a. Select a Course
   b. Select a CLO
   c. Enter proficiency percentage
   d. Enter Action Plan
   e. Select the Semester that is planned to implement the action plan
   f. Enter any action comments
   g. Checkmark the box if the plan was implemented
   h. Select the semester when the plan was implemented
   i. Then you have the option to write comments

After selecting a semester you can then begin to insert records.

Spring 2015
Summer 2015
Fall 2015
Spring 2016
Summer 2016
Fall 2016
Spring 2017
Summer 2017
Fall 2017
Spring 2018
Summer 2018
Fall 2018
Spring 2019
Summer 2019
Fall 2019
Spring 2020

How to generate reports

3. Choose which report you want to generate (Course With Plan, Courses With Implemented Plans, or Courses With Unimplemented Plans).

After selecting a semester, click one of the buttons to generate a report.
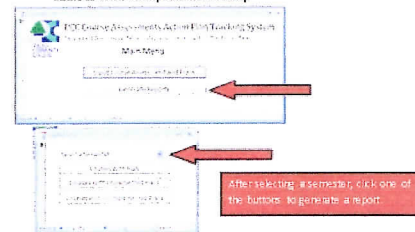
How to print reports

After you have opened the report that you want to print, do the following to print the report:

1. Right click the Title Bar of the report window.
2. Select Print Preview from the shortcut menu.
3. Click the Print tool on the toolbar to print the report.

Right click here

Courses With Plan: Summer 2015

Illustration 7.2 PCC Course Assessments Action Plan Tracking System Manual in Word

Byte Conversion Calculator

Enter Byte to Convert:	00010111	CONVERT!
Answer is:	23	

Enter Number to Convert:	23	CONVERT!
Answer is:	00010111	

Illustration 8.1 Binary Calculator in Excel

Web Site Design and Development:

- Beltikerreng, Deuerreng, Ungilrengwebsite: A website students developed for a local artist. The website was never published and made available on the Internet.
- Palau Automated Land and Resource Information System (PALARIS) website: A website a student developed for a government agency. The website was never published and made available on the Internet. (*Illustration 9.1*)
- Palau Beach Bungalows website: A website a student developed for a local resort. The website was never published and made available on the Internet.
- Emmaus High School Palau website: A website students developed for a local private high school. The website was published and made available on the Internet. URL: http://www.emmaushighschoolpalau.com UPDATE: The website is no longer available online. The reasoning is unknown, however, it is suspected that the website owners failed to renew or pay for the web hosting and the domain registration service. (*Illustration 9.2*)
- Palau Mission Academy website: A website students developed for a local private high school. The website was never published and made available on the Internet. (*Illustration 9.3*)
- Seventh-Day Adventist Elementary School website: A website students developed for a local private elementary school. The website was never published and made available on the Internet.
- Palau Community Health Center website: A website students developed for a local agency. The students met with the agency's board and are waiting for the purchasing of a host and domain in order to proceed with the publication of the site. (*Illustration 9.4*)
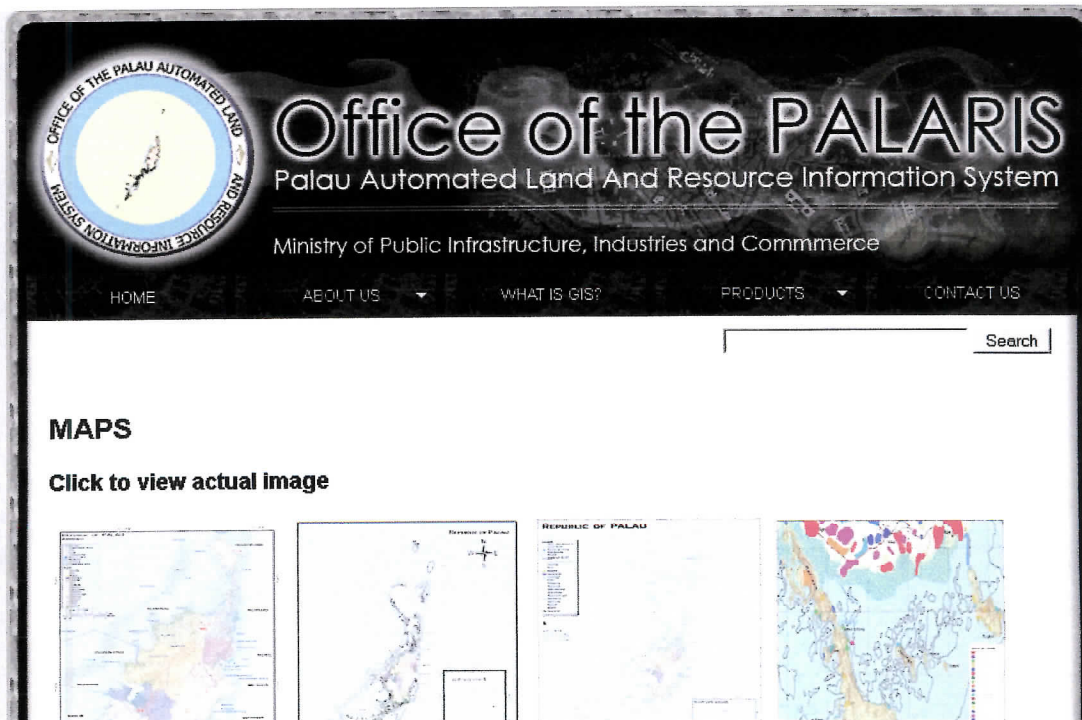

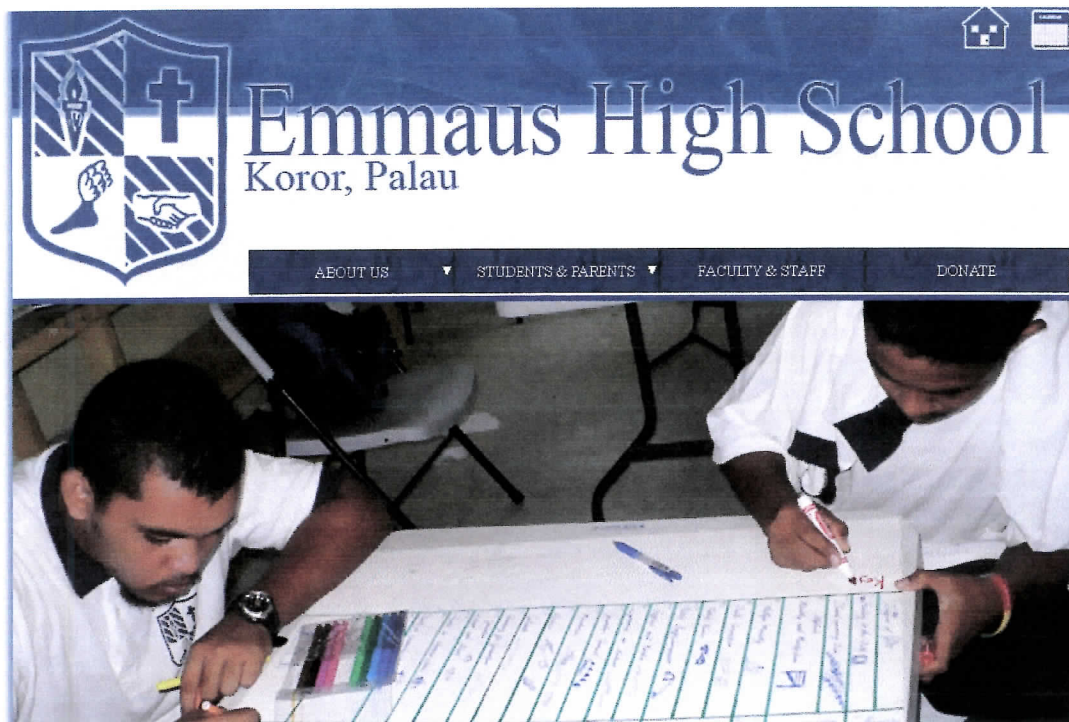**Illustration 9.1 Palau Automated Land and Resource Information System website**

Illustration 9.2Emmaus High School website

Illustration 9.3Palau Mission Academy website

Illustration 9.4 Palau Community Health Center website

Troubleshooting and Networking:

- Scanning and cleaning computers of viruses.
- Removing computer passwords using third party software.
- Disassembling laptops and desktop computers. (*Illustration 10.1, 10.2*)
- Testing and replacing computer RAMs. (*Illustration 11.1, 11.2*)
- Testing and replacing computer hard drives. (*Illustration 12.1, 12.2*)
- Recovering files from an unresponsive external and internal hard drives. (*Illustration 13.1, 13.2*)
- Reinstalling computer operating systems. (*Illustration 14.1, 14.2, 14.3, 14.4*)

Illustration 10.1 Disassembling Laptop

Illustration 10.2 Disassembling Laptop
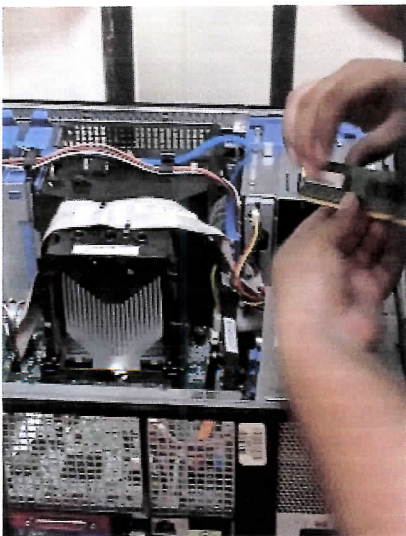

Illustration 11.1 Testing/Replacing RAMs

Illustration 11.2 Testing/Replacing RAMs

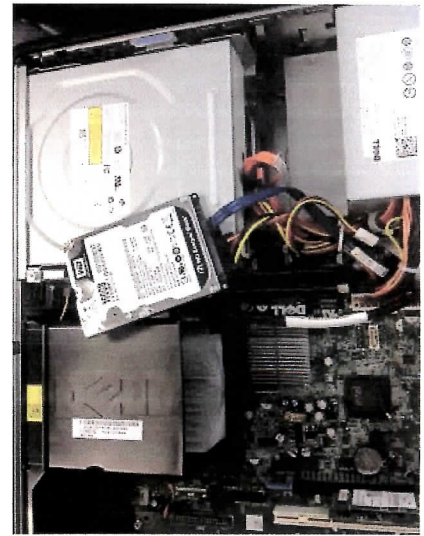**Illustration 12.1 Testing/Replacing Hard Drives**

Illustration 12.2 Testing/Replacing Hard Drives

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Illustration 13.1
Recovering Files

Illustration 13.2
Recovering Files

Illustration 14.1
Reinstalling Operating System

Illustration 14.2
Reinstalling Operating System

Illustration 14.3
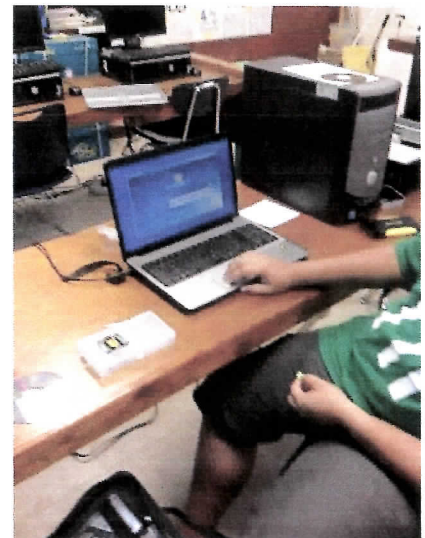**Reinstalling Operating System**

Illustration 14.4
Reinstalling Operating System

Database Design:

- Planning and designing databases using programs such as Microsoft Access.
  - PCC Academic Affairs Course Scheduling Database. (***Illustration 15.1***)
  - PCC Course Assessment Action Plan Tracking System (***Illustration 15.2***)
  - Bureau of Public Safety's Alcohol Influence Form
  - Bureau of Public Safety's Incident and Crime Report
  - Bureau of Public Safety's Arrest Report
  - Bureau of Public Safety's Sketch Report
  - Bureau of Public Safety's Traffic Accident Report Form

Illustration 15.1 PCC Academic Affairs Course Scheduling Database

Illustration 15.2 PCC Course Assessment Action Plan Tracking System

The IT program is unique in that students majoring in IT have the option of either enrolling in theInternship or the Instructor Directed Practicum (formerly titled service learning) course to fulfill graduation requirements. Because program courses introduce students to an array of specialties in IT, students have the opportunity, either through Internship or Instructor Directed Practicum, to focus more on their area of interest in IT.

Students who have the capabilities to work on projects with minimal supervision and have demonstrated qualities that ensure projects assigned to them are completed in a timely manner and with the desired qualities are advised to enroll in the Instructor Directed Practicum. The course is designed to allow students to learn through active participation in organized services or projects that meet the needs of the community. The course is integrated into and enhances the academic curriculum. Unlike the Internship, the Instructor Directed Practicum is entirely supervised by program instructors, therefore, encourages active student involvement in the learning process.

Students who require more supervision and are somewhat lax in motivation and commitment are instructed to enroll in the Internship. In the Internship course, students are assigned to work under a supervisor in a government department or a private business firm in order to learn through actual work experience. This provides students the opportunity to receive practical training in IT related areas or expertise with the constant supervision of professionals who are already in the field.

- **Recommendations for Improvements**
    a. **Does the student assessment data indicate overall program needs that may require support from the institution? Define these observed needs supported by assessment data.**

    Based on course assessment results, at this time, there are no specific needs that would require major financial support from the College.

- **Summary of Action Plans**

The IT program's action plans for the next three (3) academic years include the action plans that were set in the last program review but were not completed, the ongoing plans identified in the last review, and new plans that were identified in this review. Following are the plans:

➢ Review and update course outlines, CLOs, and other documentations.

  o This plan ensures that all course outlines are up to date and that they are aligned with the CLOs, PLOs, and ILOs. This plan does not require any additional resources.

    ▪ Note: All IT outlines are up to date however, this spring 2016 semester, all IT courses will have to undergo the standard 3 year update. Though it is anticipated that no changes in the course outlines and documentations will be made, the standard 3 year update will give the program instructors the opportunity to thoroughly review course outlines and other related documentations and make necessary changes. As a result, this plan is **ongoing**.

➢ Review and update program documentations.

  o This plan ensures that all program documentations are up to date including the PLOs and that they continue to align with the ILOs. This is an **ongoing** plan and does not require any additional resources.

➢ Search for grants to help support the IT program.

  o This plan was identified in the previous review and carried over to this review. It supports the College's effort to provide the necessary hardware and software to support the IT program. This is an **ongoing** plan and does not require any additional resources.

➢ Hire an additional qualified fulltime IT faculty.

  o This plan was identified in the last program review but was never addressed; therefore, it was carried over into this review. The implementation of this plan will require funding to compensate the hired faculty. The timeline set for this plan is **Fall 2016**.

  o This plan ensures that qualified faculty teaches IT courses whereas ensuring that students are receiving quality instruction. This is a critical program need. Such need is evident as the College struggles to find qualified instructors to teach IT courses offered every semester.

➢ Professional development.

  o This plan ensures that IT faculty is up to date with the latest in the IT field, and in turn, students are exposed to such knowledge and skills. This plan was carried over from the last program review. Implementation will require some funding and the timeline remains **ongoing**.

➤ Assess and repair, replace, or upgrade IT computer laboratory classroom computer and necessary hardware.

  o This ensures that adequate computers and necessary hardware are available for students and faculty teaching IT courses. Refer to the **Technology Plan** for replacement timeline and consult **Technology Resource Committee** for replacement funding.

➤ Assess and replace or upgrade IT computer laboratory classroom software.

  o This ensures that necessary software are available for students and faculty teaching IT courses. When the need to replace or upgrade software arises, the **Technology Resource Committee** will be consulted to identify sources of funding.

➤ Research and experiment with open source software.

  o This provides other alternative software for IT faculty and students to use. This plan promotes student learning. This plan is **ongoing** and does not require any additional resources.

➤ Recruitment of students into the IT program.

  o It is evident that the number of students choosing to go in to the IT field is very low. The program will continue to identify activities that can be used as recruitment tools to encourage students to go in to the field. This plan is **ongoing** and may require some resources to help support such activities.

- **Summary of Resource Request (if any)**

  All resource requests should be tied to at least one of the following:
  - **An institutional learning outcome**
  - **A program learning outcome**
  - **A course learning outcome**

  a. **What ILO, PLO and/or CLO does this resource request address?**

     o Personnel (Hire additional fulltime and qualified IT faculty)

       ➤ This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

     o Equipment (Assess and repair, replace, or upgrade laboratory classroom computers and necessary hardware)

       ➤ This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

o Supplies (Office supplies)

> This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

o Software (Assess and replace or upgrade laboratory classroom software)

> This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

o Training (Professional development and training in IT related topics)

> This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

o Other (Regular laboratory classroom maintenance and inspection)

> This resource request supports all IT program courses' CLOs, PLOs, and ILOs.

o Other (Identify and coordinate recruitment activities)

> This resource request supports all IT program courses' CLOs, PLOs, and ILOs as well as the program's goals and objectives.

b. **What will be the anticipated outcome if resource request is granted?**

o Personnel (Hire additional fulltime IT faculty)

> All IT courses will be taught by qualified IT faculty who have the proper education and credentials.

> The teaching load will be shared between fulltime IT faculty and the need to hire adjunct faculty every semester will be mitigated.

o Equipment (Assess and repair, replace, or upgrade laboratory classroom computers and necessary hardware)

> Adequate computers and necessary hardware are available for students and faculty teaching IT courses.

o Supplies (Office supplies)

> Faculty are equipped with the necessary office supplies to effectively teach and perform other teaching related activities.

- o Software (Assess and replace or upgrade laboratory classroom software)

  - ➢ Needed software are available for students and faculty teaching IT courses.

- o Training (Professional development and training in IT related topics)

  - ➢ IT faculty are up to date with the latest in the IT field, and in turn, students are exposed to such knowledge and skills.

- o Other (Regular laboratory classroom maintenance and inspection)

  - ➢ The College continues to provide a suitable learning and teaching environment for both students and faculty.

- o Other (Identify and coordinate recruitment activities)

  - ➢ The number of IT majors will increase and, in turn, graduation rates in the IT program will increase as well.

c. **Describe the resource request in detail.**

- o Personnel (Hire additional fulltime IT faculty)

  - ➢ Hire an additional qualified fulltime IT faculty with at least a bachelor's degree in IT or a related field to assist in teaching ongoing IT courses. This is a critical need and must be addressed immediately. The need is evident every semester as adjunct faculty are constantly being hired to teach IT courses. Additionally, the program currently has only one fulltime IT faculty who is overloaded every semester.

- o Equipment (Assess and repair, replace, or upgrade laboratory classroom computers and necessary hardware)

  - ➢ Assess and repair, replace, or upgrade IT computer laboratory classroom computers and necessary hardware to support ongoing IT courses. The IT computer laboratory classroom is covered under the Technology Plan. Replacement timeline and funding are monitored and addressed by the Technology Resource Committee under the Technology Plan.

- o Supplies (Office supplies)

  - ➢ Supplies such as pens, staplers, scotch tape, markers, and other office supplies necessary to support faculty teaching ongoing IT courses. Such resources ensure that faculty are equipped to teach and deliver course content effectively.

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o Software (Assess and replace or upgrade laboratory classroom software)

> Assess and replace or upgrade IT computer laboratory classroom software to support ongoing IT courses. The IT computer laboratory classroom is covered under the Technology Plan. Consultation with the Technology Resource Committee is necessary to identify available funds to support software purchases and upgrades, when needed.

o Training (Professional development and training in IT related topics)

> College needs to continue to support and encourage IT faculty and teaching assistant to participate in professional development and training in IT related topics. This is necessary to ensure that IT faculty and teaching assistant are up to date with the fast paced and constantly changing technological world. Professional development needed are in the areas of:

- Computer Programming, Database, and Web Languages such as Visual Studio, PHP, Java, HTML, CSS, and SQL.
- Database Management Systems, Database Design, and Database Administration
- Computer Networking, Network Design, and Network Administration
- Troubleshooting Computer Problems in the areas of both software and hardware
- Web Design
- Moodle and other Learning Management Systems
- Content Management Systems such as Drupal, Joomla, and WordPress
- Open Source Software
- Teaching Methods

o Other (Regular laboratory classroom maintenance and inspection)

> The IT computer laboratory classroom needs to be regularly inspected by the maintenance crew to identify needed replacements such as light bulbs, electrical wiring/outlets, and windows. This is necessary to support the College's continuous effort to provide a suitable learning and teaching environment for both students and faculty.

o Other (Identify and coordinate recruitment activities)

> It is evident that the number of students going in to the IT field is very low. The program will continue to identify activities that can be used as recruitment tools to encourage students to go in to the field.

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Table 1. Faculty to Class Size Ratio(program headcount).

Ratio	Fa 2012	Sp 2013	Su 2013	Fa 2013	Sp 2014	Su 2014	Fa 2014	Sp 2015	Su 2015
Full Time Faculty (F : S)	1:51	1:10	0:0	1:40	1:26	0:0	1:20	1:26	0:0
Part Time Faculty (F : S)	1:13	1:18	0:0	1:14	1:18.67	0:0	1:13	1:18	1:1

NOTE: Full Time Faculty refers to full time faculty in the program/department. A Part Time Faculty includes adjuncts as well as Full Time Faculty that are teaching courses not within their program/department. These Full Time Faculty are assisting other programs outside of their own, therefore, are considered Part Time Faculty.

Figure 5. Faculty Head Count
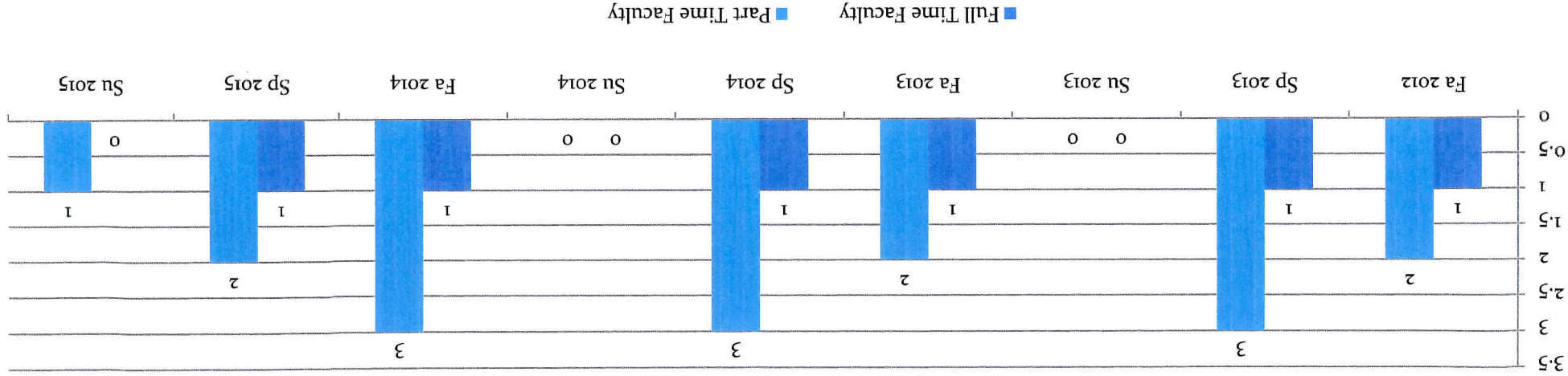
2.0 Student Learning and Curriculum

How many program 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 PLOs aligned with ILOs
12 *There are a total of 12 IT courses.	**100%** *All IT courses have CLOs. Such CLOs are currently being used to assess the courses.	**100%** * All IT outlines are up to date however, this spring 2016 semester, all IT courses will have to undergo the standard 3 year update.	**100%** * All IT outlines are up to date however, this spring 2016 semester, all IT courses will have to undergo the standard 3 year update.	**100%** *All CLOs have been aligned with PLOs and all PLOs have been aligned with ILOs. ***Refer to appendix C.***

3.0 Course Assessment Data

SAMPLE

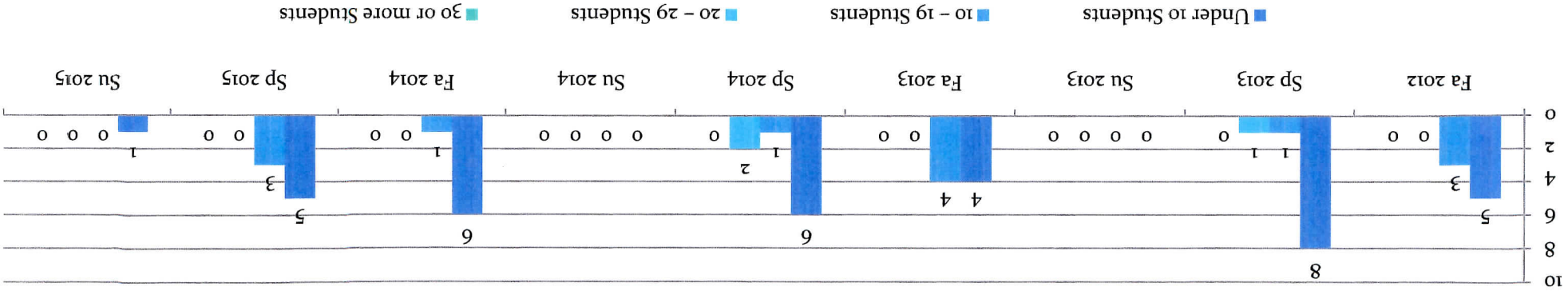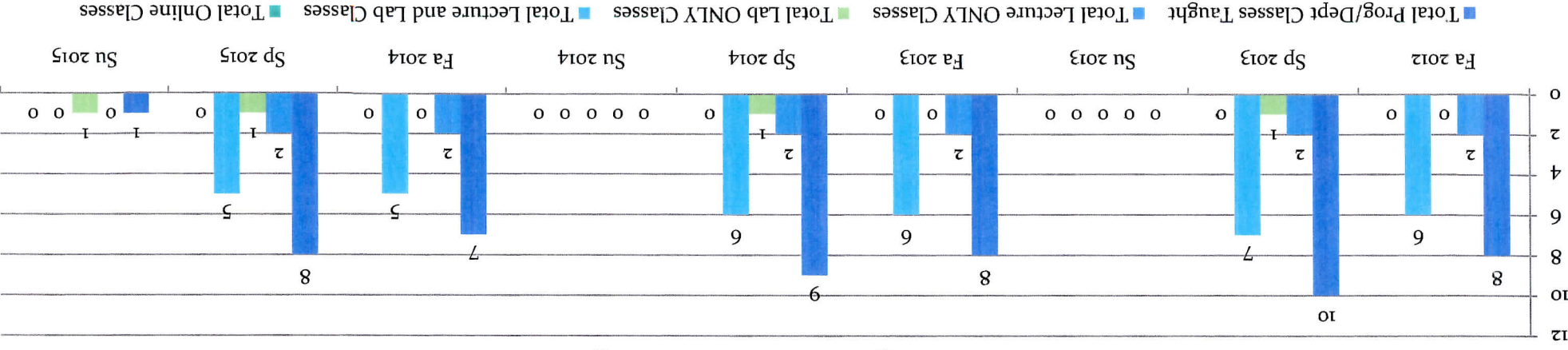| Semester Assessed	Course Assessed	CLO - PLO Alignment	Results of Assessments
Fall 2012	ED 110	CLO 4 – PLO 1 CLO 2,3,5 – PLO 2 CLO 1,4 – PLO 4 CLO 4 – PLO 5	70% of students performed at proficiency level for all CLOs except CLO 4; therefore, more time is needed to be spent in discussion of ethics of teaching.

Year 1: School Year 2012-2013 (FA12-SU13)

Semester Assessed	Course Assessed	CLO - PLO Alignment	Results of Assessments
Fall 2012	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	- A total of 96.43% of the students reached proficiency level in CLO 1. - A total of 73.08% of the students reached proficiency level in CLO 2. - A total of 100% of the students reached proficiency level in CLO 3, 4, 5. According to the assessment results, no action is needed at this time. However, because the combined total of students who reached "Meets Expectations" and "Exceeds Expectations" level in CLO 2 is far lower than the others, more emphasis in Excel is needed to improve student performance. More activities will be given to students to try and improve their problem solving and critical thinking abilities.
	IT110	CLO 1 to 5-PLO 1	A total of 100% of the students reached

			proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT205	CLO 1 to 5-PLO 1	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT215	CLO 1 to 4-PLO 3	• A total of 100% of the students reached proficiency level in CLO 1, 2, 3. • A total of 83.33% of the students reached proficiency level in CLO 4. No action needed at this time. Course will continue to be assessed.
	IT220	CLO 1 to 4-PLO 4	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
Spring 2013	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	• A total of 57% of the students reached proficiency level in CLO 1. • A total of 69% of the students reached proficiency level in CLO 2. • A total of 73% of the students reached proficiency level in CLO 3. • A total of 78% of the students reached proficiency level in CLO 4. • A total of 91% of the students reached proficiency level in CLO 5. More exercises in Word, Excel, and Access are needed to ensure that more students reach proficiency level. NOTE: This course assessment results are from a course taught by an adjunct instructor. The adjunct instructor no longer teaches IT courses.
	IT115	CLO 1 to 4-PLO 4	• A total of 50% of the students reached proficiency level in CLO 1. • A total of 100% of the students reached proficiency level in CLO 2. • A total of 50% of the students reached proficiency level in CLO 3.

			• A total of 50% of the students reached proficiency level in CLO 4. Even though only 50% of the students assessed reached proficiency level for CLOs 1, 3, and 4, no changes will be made to the course. This course only had 2 students and 1 student failed to reach proficiency level. Due to personal issues, the student was unable to dedicate enough time to the course.
	IT120	CLO 1 to 4-PLO 5	• A total of 50% of the students reached proficiency level in CLO 1. • A total of 50% of the students reached proficiency level in CLO 2. • A total of 50% of the students reached proficiency level in CLO 3. • A total of 50% of the students reached proficiency level in CLO 4. Even though only 50% of the students assessed reached proficiency level for CLOs 1, 3, and 4, no changes will be made to the course. This course only had 2 students and 1 student failed to reach proficiency level. Due to personal issues, the student was unable to dedicate enough time to the course.
	IT125	CLO 1 to 5-PLO 1	• A total of 50% of the students reached proficiency level in CLO 1. • A total of 50% of the students reached proficiency level in CLO 2. • A total of 50% of the students reached proficiency level in CLO 3. • A total of 50% of the students reached proficiency level in CLO 4. • A total of 50% of the students reached proficiency level in CLO 5. Even though only 50% of the students assessed reached proficiency level for CLOs 1, 3, and 4, no changes will be made to the course. This course only had 2 students and 1 student failed to reach proficiency level. Due to personal issues, the student was unable to dedicate enough time to the course.

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	IT200	CLO 1 to 5-PLO 2 and CLO 3 to 5-PLO 5	- A total of 89% of students reached proficiency level in CLO 1. - A total of 91% of students reached proficiency level in CLO 2. - A total of 100% of students reached proficiency level in CLO 3. - A total of 98% of students reached proficiency level in CLO 4. - A total of 100% of students reached proficiency level in CLO 5. No action needed at this time. Course will continue to be assessed.
	IT210	CLO 1 to 4-PLO1, 2	A total of 100% of the students reached proficiency level in CLO 1, 2, 3, and 4. No action needed at this time. Course will continue to be assessed.
	IT222	CLO 1-PLO 1 to 5	A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
Summer 2013	No IT courses offered.		

Year 2: School Year 2013-2014 (FA13-SU14)

Semester Assessed	Course Assessed	CLO - PLO Alignment	Results of Assessments
Fall 2013	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	- A total of 81% of the students reached proficiency level in CLO 1. - A total of 83% of the students reached proficiency level in CLO 2. - A total of 100% of the students reached proficiency level in CLO 3, 4, 5. No action needed at this time. Course will continue to be assessed.
	IT110	CLO 1 to 4-PLO 1	- A total of 100% of the students reached proficiency level in CLO 1. - A total of 88.89% of the students reached proficiency level in CLO 2, 3. - A total of 83.34% of the students reached proficiency level in CLO 4. No action needed at this time. Course will

			continue to be assessed.
	IT200	CLO 1 to 5-PLO 2 and CLO 3 to 5-PLO 5	• A total of 77% of students reached proficiency level in CLO 1, 2. • A total of 54% of students reached proficiency level in CLO 3. • A total of 85% of students reached proficiency level in CLO 4. • A total of 54% of students reached proficiency level in CLO 5. Instructors teaching this course will be asked to emphasize Access related concepts and topics to ensure that the level of proficient students increases.
	IT205	CLO 1 to 5-PLO 1	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT215	CLO 1 to 3-PLO 3	• A total of 100% of the students reached proficiency level in CLO 1, 2. • A total of 66.67% of the students reached proficiency level in CLO 3. No action needed at this time. Instructors will continue to emphasize to the students the importance of learning various web designing terminologies and jargons.
	IT220	CLO 1 to 4-PLO 4	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
Spring 2014	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	• A total of 85% of the students reached proficiency level in CLO 1. • A total of 78% of the students reached proficiency level in CLO 2. • A total of 87.5% of the students reached proficiency level in CLO 3. • A total of 92.5% of the students reached proficiency level in CLO 4. • A total of 91% of the students reached proficiency level in CLO 5. Based on the assessment results, no action needed at this time. However, since the course was taught by only adjunct instructors, it is strongly recommended that

			the course be observed to ensure to content are properly delivered.
	IT115	CLO 1 to 4-PLO 4	• A total of 83% of the students reached proficiency level in CLO 1. • A total of 40% of the students reached proficiency level in CLO 2. • A total of 33% of the students reached proficiency level in CLO 3. • A total of 50% of the students reached proficiency level in CLO 4. Even though less than 70% of the students assessed reached proficiency level for CLOs 2, 3, and 4, no changes will be made to the course. This is because the students that were enrolled in this course lacked the motivation and the enthusiasm to do well in the course. Since the same students that were enrolled in this course were also enrolled in IT120 and IT125, assessment results for the courses may be very similar. At this time, changes to course content is not necessary, however, activities that may encourage or excite students to do well in the course are strongly recommended.
	IT120	CLO 1 to 4-PLO 5	• A total of 80% of the students reached proficiency level in CLO 1. • A total of 60% of the students reached proficiency level in CLO 2. • A total of 40% of the students reached proficiency level in CLO 3. • A total of 60% of the students reached proficiency level in CLO 4. Even though less than 70% of the students assessed reached proficiency level for CLOs 2, 3, and 4, no changes will be made to the course. This is because the students that were enrolled in this course lacked the motivation and the enthusiasm to do well in the course. Since the same students that were enrolled in this course were also enrolled in IT115 and IT125, assessment results for the courses may be very similar. At this time, changes to course content is not necessary, however, activities that may

			encourage or excite students to do well in the course are strongly recommended.
	IT125	CLO 1 to 5-PLO 1	• A total of 83% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT200	CLO 1 to 5-PLO 2 and CLO 3 to 5-PLO 5	• A total of 77% of students reached proficiency level in CLO 1, 2. • A total of 62% of students reached proficiency level in CLO 3, 4, 5. Even though less than 70% of the students reached proficiency level for CLO3, 4, and 5, no changes to the course are needed at this time. However, it is strongly recommended that the adjunct instructors be observed and evaluated to ensure that content are delivered appropriately.
	IT210	CLO 1 to 4-PLO1, 2	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT222	CLO 1-PLO 1 to 5	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
Summer 2014	No IT courses offered.		

Year 3: School Year 2014-2015 (FA14-SU15)

Semester Assessed	Course Assessed	CLO - PLO Alignment	Results of Assessments
Fall 2014	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	• A total of 81% of the students reached proficiency level in CLO 1. • A total of 83% of the students reached proficiency level in CLO 2. • A total of 100% of the students reached proficiency level in CLO 3, 4, 5. No action needed at this time. Course will continue to be assessed.
	IT110	CLO 1 to 4-PLO 1	• A total of 75% of the students reached proficiency level in CLO 1, 2, 3, 4.

			No action needed at this time. Course will continue to be assessed.
	IT200	CLO 1 to 5-PLO 2 and CLO 3 to 5-PLO 5	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT205	CLO 1 to 5-PLO 1	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT215	CLO 1 to 3-PLO 3	• A total of 75% of the students reached proficiency level in CLO 1, 2. • A total of 100% of the students reached proficiency level in CLO 3. No action needed at this time. Course will continue to be assessed.
	IT220	CLO 1 to 4-PLO 4	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
Spring 2015	IT105	CLO 1 to 5-PLO 2 and CLO 3 to 4-PLO 5	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT115	CLO 1 to 4-PLO 4	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT120	CLO 1 to 4-PLO 5	• A total of 0% of the students reached proficiency level in all CLOs. To address CLO1: More database activities will be given to ensure that students understand the different types of databases and their characteristics. To address CLO2: More database activities will be given to ensure that students know the different components of a database. To address CLO3: More data modeling activities will be given to ensure that

			students can identify and correct database problems. To address CLO4: More data modeling activities will be given to ensure that students can properly plan, design, and create relational databases. NOTE: This course only had 1 student enrolled in it. Though the student assessed did not reach proficiency level, she is rated as a high level 2 and so if she had put in more time and effort, she could have reached proficiency level. Comparing this semester to the last semester this course was assessed, the percentage dropped drastically.
	IT125	CLO 1 to 5-PLO 1	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT200	CLO 1 to 5-PLO 2 and CLO 3 to 5-PLO 5	• A total of 92% of students reached proficiency level in CLO 1. • A total of 67% of students reached proficiency level in CLO 2. • A total of 100% of students reached proficiency level in CLO 3, 4, 5. More Excel exercises will be given and more time will be spent on Excel functions and formula writing. Though only 67% of the students reached proficiency level (3 or 4), the 33% percent of students who did not are all at a level 2. Comparing this semesters assessment results to that of the last semester that this course was offered, the number of students who reached proficiency level decreased substantially.
	IT210	CLO 1 to 4-PLO1, 2	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed.
	IT222	CLO 1-PLO 1 to 5	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will

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			continue to be assessed.
Summer 2015	IT223	CLO 1-PLO 1 to 5	• A total of 100% of the students reached proficiency level in all CLOs. No action needed at this time. Course will continue to be assessed. NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.

4.0 Program Learning Outcomes (PLOs) Assessment

SAMPLE

List PLOs	Proficiency Levels	Results of Assessments
ED PLO #1	ED110- CLO#4-75% ED120- CLO#1 -77% ED151- CLO#1,2,3- 88% ED200- CLO#1,2 -84% ED204- CLO#1 – 92%	83% of the students reached the proficiency level for ED PLO #1. No action is needed.
ED PLO #2		

List PLOs	Proficiency Level	Results of Assessments
IT PLO #1	IT110-CLO #1 to 4-89.32% IT125-CLO #1 to 5-77.67% IT205-CLO #1 to 5-100% IT210-CLO #1 to 4-100% IT222-CLO #1-100% IT223-CLO #1-100%	No action needed at this time. Courses will continue to be assessed and changes will be made when necessary. NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.
IT PLO #2	IT105-CLO #1 to 5-87.98% IT200-CLO #1 to 5-84.96% IT210-CLO #1 to 4-100% IT222-CLO #1-100% IT223-CLO #1-100%	No action needed at this time. Courses will continue to be assessed and changes will be made when necessary. NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.
IT PLO #3	IT215-CLO #1 to 4-90% IT222-CLO #1-100% IT223-CLO #1-100%	No action needed at this time. Courses will continue to be assessed and changes will be made when necessary. NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.
IT PLO #4	IT115-CLO #1 to 4-71.33% IT220-CLO #1 to 4-100% IT222-CLO #1-100% IT223-CLO #1-100%	No action needed at this time. Courses will continue to be assessed and changes will be made when necessary.

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		NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.
IT PLO #5	IT105-CLO #3 to 4-93.10% IT120-CLO #1 to 4-36.67% IT200-CLO #3 to 5-85.13% IT222-CLO #1-100% IT223-CLO #1-100%	In spring 2013, only 2 students were enrolled in IT120. Only 1 or 50% of students reached proficiency level. It was determined that due to personal issues, the 1 student was unable to dedicate enough time to the course. As such, no changes were made to the course. In spring 2014, more students were enrolled in IT120, however, less than 70% of the students assessed reached proficiency level for CLOs 2, 3, and 4. It was determined that the students enrolled in the course lacked the motivation and the enthusiasm to do well in the course, resulting in less than 70% of them reaching proficiency level. As such, no changes were made to the course. In spring 2015, only 1 student was enrolled in IT120. This 1 student did not reach proficiency level which resulted in 0% proficiency. However, the student rated as a high level 2 and so if the student had put in more time and effort, the student could have reached proficiency level. More database activities will be given to future students to ensure that they know the different types of databases and their characteristics, are able to identify the different components of a database, are able to troubleshoot and correct database problems, and are able to properly plan, design, and create relational databases. NOTE: All IT223: Internship assessment documentations are maintained by the Internship Coordinator.

5.0 Evaluation of Previous Program Review Action Plans

Indicate the status of the previous program review action plans

Action Plan Activity/Objectives	Status Complete/Ongoing/Incomplete	Remarks
Review and update course outlines, CLOs, and other documentations	Ongoing	All IT course outlines were submitted and approved by CPC in January 2013. As such, all IT course outlines are up to date.
Review and update program documentations	Ongoing	Program modification to include PLO5 was submitted and approved by CPC in January 2013.

Search for grants to help support the IT program	Ongoing	In the previous IT program review, searching for grants to help cover the program's equipment cost was set as a plan of action. However, the program currently has only one fulltime faculty. As a result, the need to search for grants to help support the program is a need but due to the lack of man power, right now, this plan really is at a halt.
Hire an additional qualified fulltime IT faculty	Incomplete	Currently, the program has only 1 fulltime IT instructor. At the moment, the College is not actively searching for another qualified instructor to assist in teaching IT and CS courses. The need to hire an additional qualified fulltime IT and CS faculty is evident as the only IT faculty is overloaded every semester and the Academic Affairs struggles to find instructors to teach IT and CS courses every semester. In September 2013, a JICA volunteer was assigned to PCC to help teach IT courses. Unfortunately, the JICA volunteer's contract was only for two years and so ended in December 2015. As a result, the program is now back to only 1 primary IT faculty.
Professional development	Ongoing	Constant professional development such as workshops, conferences, and trainings in computer related topics is necessary to allow IT faculty to keep up with the fast paced and constantly changing technological world.
Upgrade IT computer laboratory classroom computer and necessary hardware	Ongoing	After relocation of the IT lab to Btaches building, the lab was furnished with new computers and software to support ongoing IT program courses. The computers are properly being cleaned and maintained and so, to date, the computers are still adequate and capable to support ongoing courses. Assessments of the computers will be made and necessary repairs, replacements, or upgrades will be requested when necessary.
Upgrade IT computer laboratory classroom software	Ongoing	After relocation of the IT lab to Btaches building, the lab was furnished with new computers and software to support ongoing IT program courses. To date, the software installed in the computers are adequate t support ongoing courses.

		Assessments of the software will be made and necessary replacements or upgrades will be requested when necessary
Research and experiment with open source software	Ongoing	The IT lab utilizes several different open source software to support student learning as well as teaching. Such software includes an FTP server, Web server (EasyPHP), Moodle, Wordpress, and iTalc.
Recruitment of students into the IT program	Ongoing	IT faculty and students participate in the annual Career and Technical Awareness Week to showcase some of the activities/projects they have been involved in as well as promote the IT program to potential students.

6.0 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 course outlines, CLOs, and other documentations	This plan ensures that all course outlines are up to date and that they are aligned with the CLOs, PLOs, and ILOs.	None	Fall 2016
Review and update program documentations	This plan ensures that all program documentations are up to date including the PLOs and that they are aligned with the ILOs.	None	Fall 2016
Search for grants to help support the IT program	This plan does not necessarily improve but rather support the College's effort to provide the necessary hardware and software to support the IT program.	None	Ongoing
Hire an additional qualified fulltime IT faculty	This plan ensures that qualified faculty teaches IT courses whereas ensuring that students are receiving quality instruction.	Funding to hire another qualified fulltime IT faculty	Fall 2016
Professional development	This plan ensures that IT faculty and teaching assistant are up to date with the latest in the IT field, and in turn, students are exposed to such knowledge and skills.	Funding to allow IT faculty and teaching assistant to attend trainings, workshops, and conferences in IT related topics.	Ongoing
Assess and repair, replace, or upgrade IT	This ensures that adequate computers and necessary	Funding to buy new computer and	Refer to the Technology Plan

computer laboratory classroom computer and necessary hardware.	hardware are available for students and faculty teaching IT courses.	all necessary hardware.	for replacement timeline and consult Technology Resource Committee for replacement funding.
Assess and replace or upgrade IT computer laboratory classroom software.	This ensures that necessary software are available for students and faculty teaching IT courses.	Funding to buy new software or upgrade existing ones.	When the need arise, consult Technology Resource Committee for funding.
Research and experiment with open source software	This provides other alternative software for IT faculty and students to use. This plan promotes student learning.	None	Ongoing
Recruitment activities	It is evident that the number of students going in to the IT field is very low. The program will continue to identify activities that can be used as recruitment tools to encourage students to go in to the field.	Funding to support recruitment activities.	Ongoing

7.0 Resource Requests

Type of Resource	Description	Estimated Amount Requested	Justification
Personnel	Hire an additional qualified fulltime IT faculty with at least a bachelor's degree in IT or a related field.	At least $16,000 per year.	There is a need to hire another qualified fulltime IT faculty to assist in teaching the IT and CS courses. Such need is evident as the College struggles to find qualified instructors to teach IT and CS courses offered every semester. Currently, the IT program has only one fulltime IT faculty, and as a result, the faculty is overloaded every semester.
Facilities	None	None	None
Equipment	Upgrade IT computer laboratory classroom computers and	At least $25,000	To ensure that adequate computers and necessary

	necessary hardware.		hardware are available for students and faculty teaching IT courses. Refer to the Technology Plan for replacement timeline and consult Technology Resource Committee for replacement funding.
Supplies	Office supplies and other course support supplies	$3000 first year $100 every year after	To ensure that IT faculty has necessary technology to support and promote teaching and learning, the first year cost will include the cost of purchasing an android and a windows based tablet. This will allow the faculty as well as students to experiment in developing apps for such devices. The $100 dollars every year after the first year will be used toward purchasing regular office supplies.
Software	Upgrade IT computer laboratory classroom software.	At least $10,000	To ensure that necessary software are available for students and faculty teaching IT courses. Consult Technology Resource Committee for funding.
Training	Professional development and training in IT related topics. Professional development needed are in the areas of: • Computer Programming, Database, and Web Languages such as Visual Studio, PHP, Java, HTML, CSS, and SQL. • Database Management Systems, Database Design, and Database Administration • Computer Networking, Network Design, and Network Administration • Troubleshooting Computer Problems in the areas of both	At least $3,500 per participant per training.	To ensure that IT faculty and teaching assistant are up to date with the latest in the IT field, and in turn, students are exposed to such knowledge and skills. Consult Technology Resource Committee as funding may be available to support specific activities.

	software and hardware • Web Design • Moodle and other Learning Management Systems • Content Management Systems such as Drupal, Joomla, and WordPress • Open Source Software • Teaching Methods		
Other	The IT computer laboratory classroom needs to be regularly inspected by the maintenance crew to identify needed replacements such as light bulbs, electrical wiring/outlets, and windows.	At least $100 per replacement, however, more accurate cost will be based on the necessary replacement activities that needs to take place.	To provide a suitable learning and teaching environment for both students and faculty.
Other	Identify and coordinate recruitment activities that can be used to recruit more students to go in to the IT field.	At least $500 per year to support the recruitment activities.	To encourage more students to go in to the IT field.
Total	All resource requests.	Approximately $96,200 for 3 years (until the next IT program review).	College's continuous effort to support students, ongoing IT courses, and the IT program.

Appendix B: Provide Program Learning Outcomes (PLOs)

Palau Community College
Information Technology Program
Program Learning Outcomes

During the program experience, the ***Program Learning Outcomes*** (PLOs) will be assessed through the use of signature assignments of course learning outcomes which are aligned with the PLOs. A rating scale will be used to determine the students' proficiency level of each PLO using specifically aligned assignments. The numerical ratings of 4, 3, 2 and 1 are not intended to represent the traditional school grading system of A, B, C, D and F. The descriptions associated with each of the numbers focus on the level of student performance for each of the course learning outcomes listed below.

Rating Scale:
- 4 ------------- **Exceeds Expectations**
- 3 ------------- **Meets Expectations**
- 2 ------------- **Developing**
- 1 ------------- **Below Expectations**

PLO #1:

Numerical Value	Computer Programming
4	Student will plan, design, and develop a **computer program** demonstrating an understanding in the following: process of flowcharting programs, process of pseudocoding and documenting programs, process of writing computer programs using a programming language and applications, and the process of compiling and debugging programs.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

PLO #2:

Numerical Value	Utilizing Office Applications
4	Students will create various documents and files demonstrating a thorough understanding in using various **office applications** such as utilizing advance features of word-processing, presentation, spreadsheet, and database applications.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

PLO #3:

Numerical Value	Designing and Managing Websites
4	Students will propose, plan/design, and create a **web-based** project to demonstrate an understating in the process of writing project proposals, process of planning and designing web-based applications, different web supported programming languages, process of uploading and managing web applications, and an understanding in computer networking and protocols.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

PLO #4:

Numerical Value	Networking and Troubleshooting
4	Students will propose, plan/design, and create a computer network to demonstrate an understating in the process of identifying different hardware, determining hardware compatibility, process of planning and designing computer **networks**, and the process of **troubleshooting** networking and other computer related problems.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

PLO #5:

Numerical Value	Developing Databases
4	Students will propose, plan/design, and create a **database** to demonstrate an understating in the basic principles of database design including the development of data models, establishment of entity relationships, determine appropriate degree of normalization, identify and define special keys, and addressing access and security concerns.
3	Perform the tasks mentioned above with mixed quality, but most are adequate and complete.
2	Perform the tasks mentioned above with mixed quality, but most are inadequate or incomplete.
1	Perform the tasks mentioned above inaccurately or incompletely.

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Course	PLO 1 (Computer Programming) Student will plan, design, and develop a computer program demonstrating an understanding in the following: process of flowcharting programs, process of pseudocoding and documenting programs, process of writing computer programs using a programming language and applications, and the process of compiling and debugging programs.	PLO 2 (Office Applications) Students will create various documents and files demonstrating a thorough understanding in using various office applications such as utilizing advance features of word-processing, presentation, spreadsheet, and database applications.	PLO 3 (Web-Based) Students will propose, plan/design, and create a web-based project to demonstrate an understating in the process of writing project proposals, process of planning and designing web-based applications, different web supported programming languages, process of uploading and managing web applications, and an understanding in computer networking and protocols.	PLO 4 (Networking and Troubleshooting) Students will propose, plan/design, and create a computer simulated network to demonstrate an understating in the process of identifying different hardware, determining hardware compatibility, process of planning and designing computer networks, and the process of troubleshooting networking and other computer related problems.	PLO 5 (Database) Students will propose, plan/design, and create a database to demonstrate an understating in the basic principles of database design including the development of data models, establishment of entity relationships, determine appropriate degree of normalization, identify and define special keys, and addressing access and security concerns.	Institutional Learning Outcomes (ILOs)
IT105		CLO 1, 2, 3, 4, 5			CLO 3, 4	ILO 1, 3
IT110	CLO 1, 2, 3, 4					ILO 1, 3
IT115				CLO 1, 2, 3, 4		ILO 1, 3
IT120					CLO 1, 2, 3, 4	ILO 1, 3
IT125	CLO 1, 2, 3, 4, 5					ILO 1, 3
IT200		CLO 1, 2, 3, 4, 5			CLO 3, 4, 5	ILO 1, 3
IT205	CLO 1, 2, 3, 4, 5					ILO 1, 3
IT210	CLO 1, 2, 3, 4	CLO 1, 2, 3, 4				ILO 1, 3
IT215			CLO 1, 2, 3			ILO 1, 2, 3, 6
IT220				CLO 1, 2, 3, 4		ILO 1, 3
IT222	CLO 1	CLO 1	CLO 1	CLO 1	CLO 1	ILO 1, 2, 3, 4, 5, 6
IT223	CLO 1	CLO 1	CLO 1	CLO 1	CLO 1	ILO 1, 2, 3, 4, 5, 6

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Appendix D: Provide signature assignment form

Information Technology Program

Course Number:	Course Title:	Semester Credit:	Signature Assignments:
IT105	PC Office Applications	3	1-Word Activity (CLO1) 1-Excel Activity (CLO2) 1-Access Table Activity (CLO3) 1-Access Query Activity (CLO4) 1-PowerPoint Activity (CLO5)
IT110	Introduction to Programming	3	Midterm Project (CLO 1, 2, 3, 4) Final Project (CLO 1, 2, 3, 4)
IT115	Operating Systems and Networks	3	Midterm Exam (CLO 1, 3, 4) Final Exam (CLO 1, 2, 3, 4)
IT120	Database Management Systems	3	Final Exam (CLO 1, 2, 3, 4) Final Project (CLO 1, 2, 3, 4)
IT125	Visual Basic Programming I	3	Midterm Project (CLO 1, 2, 3, 4, 5) Final Project (CLO 1, 2, 3, 4, 5)
IT200	Intermediate PC Office Applications	3	1-Word Activity (CLO 1) 1-Excel Activity (CLO 2) 1-Access Activity (CLO 3, 4, 5)
IT205	Visual Basic Programming II	3	3-Programming Assignments (CLO 1, 2, 3, 4, 5)
IT210	MS Applications Using Visual Basic	3	1-Word Programming Assignment (CLO 1) 1-Excel Programming Assignment (CLO 2) 1-PowerPoint Programming Assignment (CLO 3) 1-Access Programming Assignment (CLO 4)
IT215	Web Management and Design	3	Midterm Project-ePortfolio (CLO 1, 2) Final Project (CLO 1, 2) Midterm or Final Exam (CLO 3)
IT220	Troubleshooting Microcomputer Systems	3	Midterm or Final Exam (CLO 1, 4) Hands On Activity (CLO 2, 3)
IT222	Service Learning / Instructor Directed Practicum	4	Training Rating Sheet (CLO 1) Reflection Paper (CLO 1) Journal (CLO 1) Major Project (CLO 1)
IT223	Internship	4	Training Rating Sheet (CLO 1) Reflection Paper (CLO 1) Student's Self Evaluation (CLO 1)

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