



“We Strive to Guarantee Quality

and Excellence”

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

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

Three Year Program Review

Degree / Certificate Program

Construction Technology

Period of Three Year Review

Fall 2013 to Summer 2016

Program Review Completed By:

Name	Title	Signature	Date
O'Hara Skebong	Instructional Assistant		6/27/17

Program Review Certified By:

Name	Title	Signature	Date
Robert Ramarui	Dean, Academic Affairs		6/27/17

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

Name	Title	Signature	Date
Ligaya T. Para	Institutional Researcher		6/27/17

Purpose:

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

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

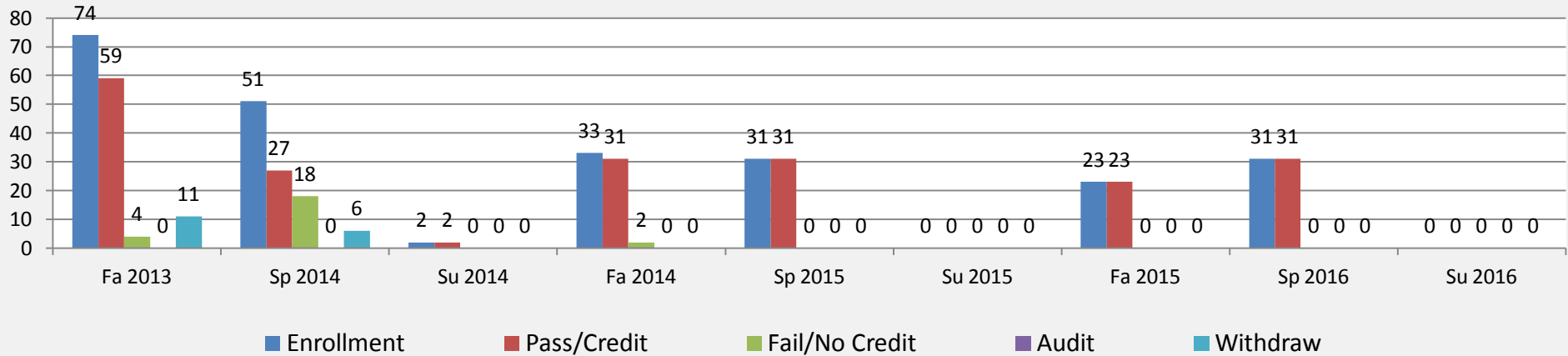
**Instructions for completing Program Review:**

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

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

1.0 Program Data

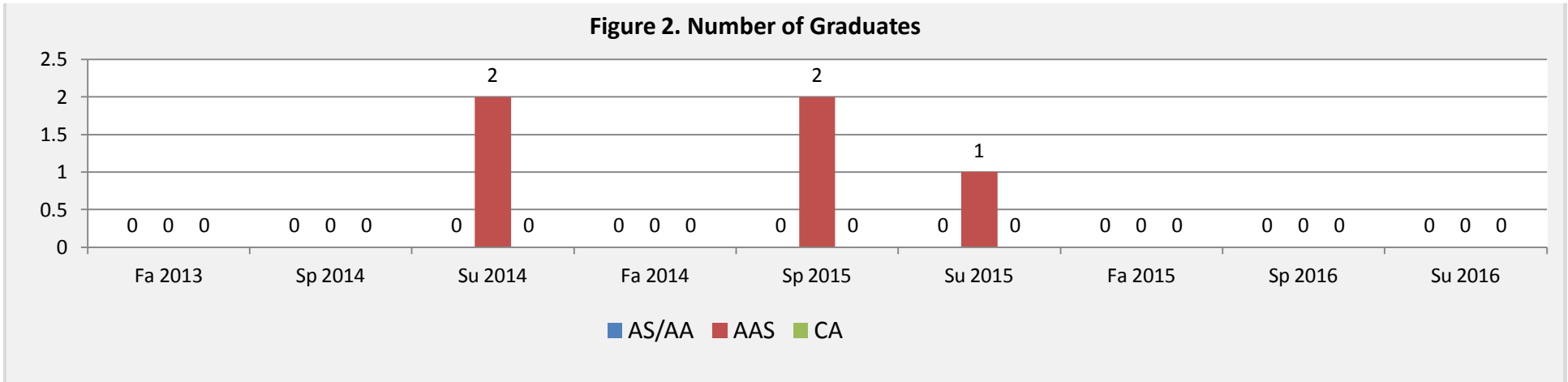
Figure 1. Number of Students Enrolled, Pass/Credit, Fail/No Credit, Audit and Withdraw



Brief summary of data

Enrollment was high in fall 2013 but has since dropped quite a bit.

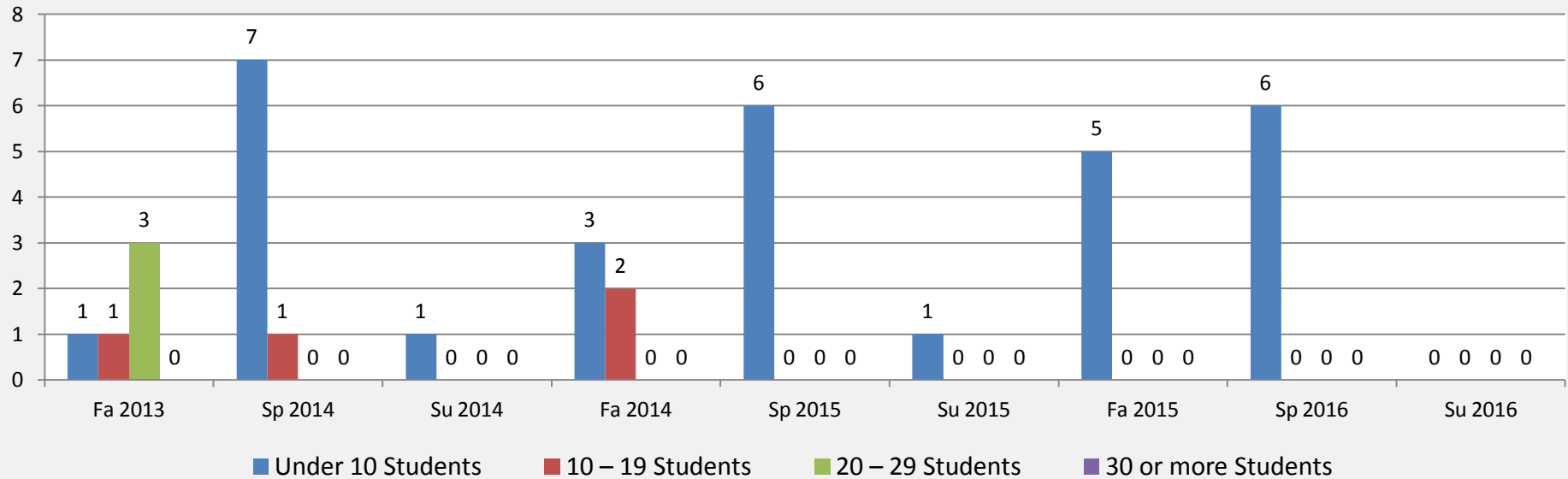
While a good number of students were completing the courses with passing grades, there was concern over the number of students either failing or withdrawing. Since upper courses enrollments rely on lower courses success, students with grades of D, F or W were not able to continue on. It was noticed that these students who were not successful would be less motivated after the midterm session and often not continue to the end of the semester. Therefore, in fall 2014, the course scheduling was changed so that students would take only 1 or 2 courses at a time in a longer period of time to allow for a sooner completion of the course. For example, one course will run for four weeks and then another course will run the next four weeks and so on. As noted on Figure 1 above, from fall 2014 to spring 2016, there were little to no students failing and none withdrew. While there were some grades of D, students were able to continue on to the next semester’s courses and stay on track for graduation. This seems to be a better schedule for CT students and program courses have been continued to be scheduled as such.



Brief summary of data

Most students complete all program requirements during a summer session which accounts for the summer graduation number. Students who remain on track and succeed in all their courses will only need the internship course the last semester which would be the summer session. Students who do not succeed but need to retake courses will be spring or fall graduates.

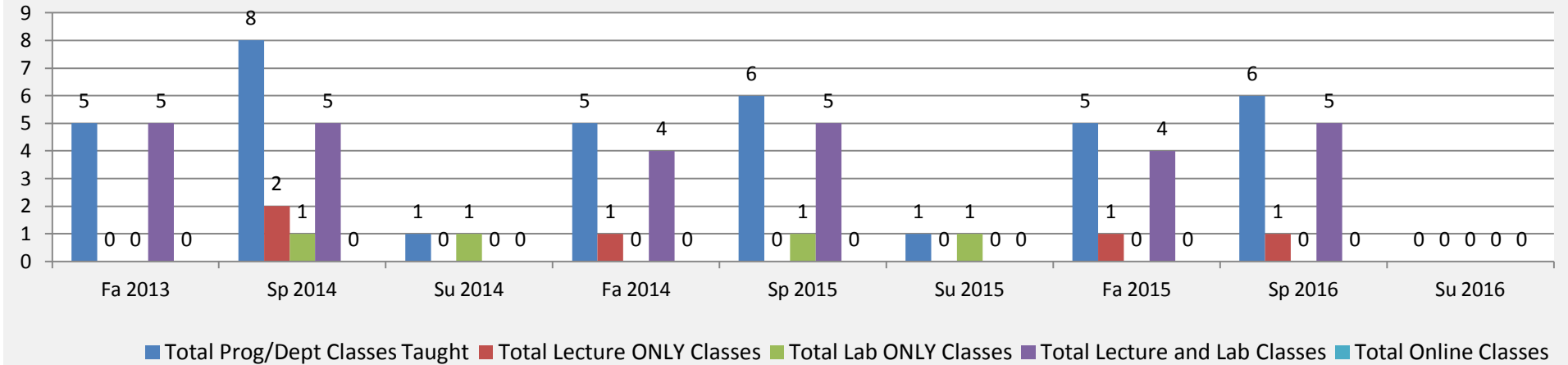
Figure 3. Number of Classes Based on Student Enrollment



Brief summary of data

When enrollment was fairly high, class size was larger as in fall 2013 when the enrollment was at its highest level. However, with the drop in enrollment, the course enrollment is now under 10 students. The summer session is usually an intern student completing the program and graduating as major program courses are not offered during the summer unless there is a specific request.

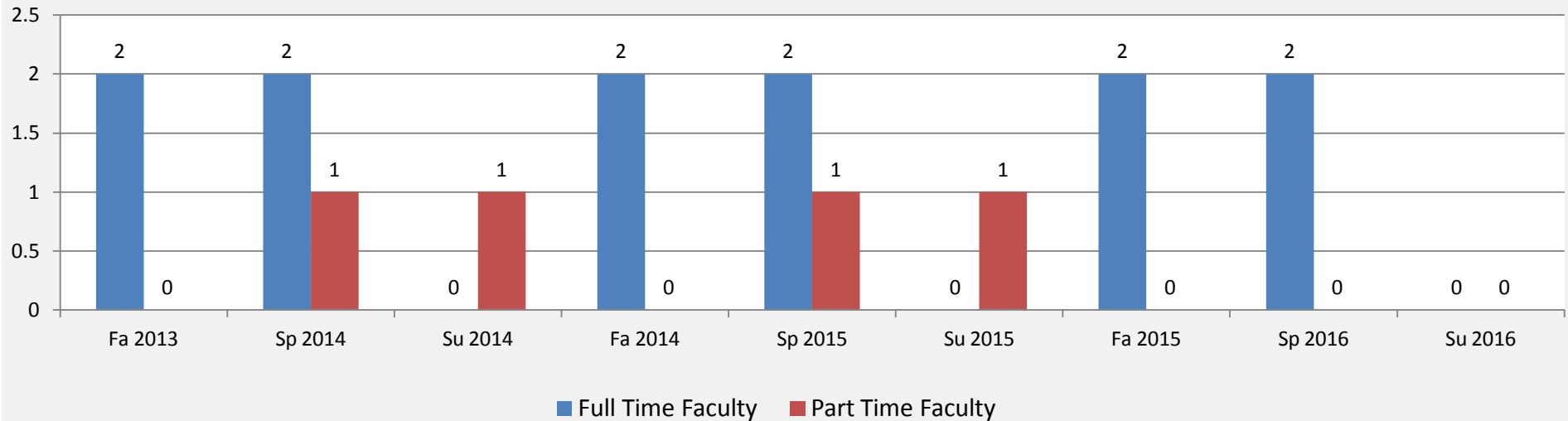
Figure 4. Class Offering



Brief summary of data

Most of the courses in the CT program require lab hours so that students receive practice in the construction skills needed for the field. Therefore, most course are a combination of lecture and lab. Only Construction Management and Blueprint Reading for Construction are lecture only courses while the Internship course is a lab only course. None of the required construction program courses are distance education courses although students may choose to take a general education course on line.

Figure 5. Faculty Head Count



Brief summary of data

The Construction Technology Program has two full time faculty. One of the faculty teaches the drafting, construction management, and blue print reading courses while the other full time faculty teaches the remaining construction courses which includes masonry and plumbing. In fall 2015, the full time faculty who had run the program for over 10 years resigned due to illness. The college was able to hire another full time instructor who while having less experience in teaching is able to run the program. The part time instructor is the coordinator for the Internship course where students are placed at job sites.

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

Ratio	Fall 2013	Spring 2014	Summer 2014	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Spring 2016	Summer 2016
Full Time Faculty (F : S)	<u>1 : 71</u>	<u>1 : 30</u>	<u>— : —</u>	<u>1 : 31</u>	<u>1 : 25</u>	<u>— : —</u>	<u>1 : 21</u>	<u>1 : 19</u>	<u>— : —</u>
Part Time Faculty (F : S)	<u>1 : 3</u>	<u>1 : 10.5</u>	<u>1 : 2</u>	<u>1 : 2</u>	<u>1 : 3</u>	<u>1 : 1</u>	<u>1 : 2</u>	<u>1 : 8</u>	<u>— : —</u>

Brief summary of data

Table 1 above shows the drop in enrollment after fall 2013. Class size is now usually under 10 students. The part time instructor is needed to help with the teaching load. One is assigned as the coordinator for the internship course where students are placed on job sites.

II. Student Learning and Curriculum

How many program courses are there? (refer to catalog or recent approval by CPC)	% of courses with Identified CLOs	List all revised program courses outlines or proposed new courses that received CPC approval within this review cycle	% of PLOs aligned with ILOs
12	100%	CT212 – 5/23/14	100%
		CT222 – 8/14/14, 1/11/16	
		AD120 – 5/23/14	
		AD210 – 5/23/14	
		BP115 – 5/23/14	

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

Out of the 13 courses, 5 were revised during this review cycle. CT212 used to have a lab but the instructor found it was not necessary so the course was revised to drop the lab hours and become a lecture only course. AD120 was a 4 credit course with 3 credits used for lecture. Upon the advice of the teaching instructor, the course was approved with a reduction of one credit for lecture which also reduced overall credits from 4 to 3. The title, course description and student learning outcomes (course content) were also revised. AD210 had equipment revised while BP115 was a 3 year update review.

The remaining courses all need to be reviewed as it is time for the required 5 year review. Changes will be made if needed.

III. Course Assessment Data

Year 1: School Year Fall 2013 to Summer 2014

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2013	AD120	CLO 1,2,3,4,5 – PLO 1 CLO 2,3,4,5 – PLO 2 CLO 3,4,5 – PLO 3 CLO 4 – PLO 4	CLO 1: 40% of the students assessed performed at the proficiency level. (midterm) CLO 1: 40% of the students assessed performed at the proficiency level. (project) CLO 2: 40% of the students assessed performed at the proficiency level. CLO 3: 40% of the students assessed performed at the proficiency level. CLO 4: 40% of the students assessed performed at the proficiency level. CLO 5: 0% of the students assessed performed at the proficiency level.
Fall 2013	CT112	CLO 1,2,3,4,5 - PLO 2 CLO 1 - PLO 3 CLO 1 - PLO 4 CLO 1 - PLO 5	CLO 1: 75% of the students assessed performed at the proficiency level. (project) CLO 1: 83% of the students assessed performed at the proficiency level. (exam) CLO 2: 75% of the students assessed performed at the proficiency level. (project) CLO 2: 83% of the students assessed performed at the proficiency level. (exam) CLO 3: 83% of the students assessed performed at the proficiency level. (exam) CLO 4: 75% of the students assessed performed at the proficiency level. (project) CLO 4: 83% of the students assessed performed at the proficiency level.

			(exam) CLO 5: 83% of the students assessed performed at the proficiency level. (exam)
Fall 2013	CT113	CLO 1 – PLO 1 CLO 1,2,3,4,6 – PLO 2 CLO 1,5 – PLO 3 CLO 1 - PLO 4 CLO 1 – PLO 5	CLO 1: 83% of the students assessed performed at the proficiency level. CLO 2: 83% of the students assessed performed at the proficiency level. CLO 3: 83% of the students assessed performed at the proficiency level. CLO 4: 83% of the students assessed performed at the proficiency level. CLO 5: 83% of the students assessed performed at the proficiency level. CLO 6: 83% of the students assessed performed at the proficiency level.
Fall 2013	CT115	CLO 1,2,3,4,5,6,7 – PLO 1 CLO 1,2,3,4,5,6,7 – PLO 2 CLO 1,2,6,7 – PLO 3 CLO 1 – PLO 4 CLO 1,2,3 – PLO 5	CLO 1: 83% of the students assessed performed at the proficiency level. (project) CLO 1: 83% of the students assessed performed at the proficiency level. (exam) CLO 2: 83% of the students assessed performed at the proficiency level. (project) CLO 2: 83% of the students assessed performed at the proficiency level. (exam) CLO 3: 83% of the students assessed performed at the proficiency level. (project) CLO 3: 83% of the students assessed performed at the proficiency level. (exam) CLO 4: 83% of the students assessed performed at the proficiency level. (project) CLO 4: 83% of the students assessed performed at the proficiency level. (exam) CLO 5: 83% of the students assessed performed at the proficiency level. (project) CLO 5: 83% of the students assessed performed at the proficiency level. (exam) CLO 6: 83% of the students assessed performed at the proficiency level. (exam) CLO 7: 83% of the students assessed performed at the proficiency level. (exam)
Fall 2013	CT212	CLO 1,2,3,4,5 – PLO 1 CLO 1,2,3,4,5 – PLO 5	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: 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.
Fall 2013	MS101	CLO 1,3,4 – PLO 1 CLO 1,2,3,4 - PLO 3 CLO 1 - PLO 5	CLO 1: 80% of the students assessed performed at the proficiency level. (project) CLO 1: 80% of the students assessed performed at the proficiency level. (exam) CLO 2: 80% of the students assessed performed at the proficiency level. (project) CLO 2: 80% of the students assessed performed at the proficiency level. (exam) CLO 3: 80% of the students assessed performed at the proficiency level. (project) CLO 3: 80% of the students assessed performed at the proficiency level. (exam) CLO 4: 80% of the students assessed performed at the proficiency level. (project) CLO 4: 80% of the students assessed performed at the proficiency level. (exam) CLO 5: 80% of the students assessed performed at the proficiency level. (project) CLO 5: 80% of the students assessed performed at the proficiency level (exam)

Spring 2014	CT122	CLO 1,2,3,4,5 – PLO 1 CLO 1,2,3,4,5 – PLO 2 CLO 1,2 – PLO 5	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: 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.
Spring 2014	CT123	CLO 1,2,3,4,5,6 – PLO 1 CLO 1,2,3,4,5,6 – PLO 2 CLO 1 – PLO 5	CLO 1: 100% of the students assessed performed at the proficiency level. (exam) CLO 1: 100% of the students assessed performed at the proficiency level. (project) CLO 2: 100% of the students assessed performed at the proficiency level. (exam) CLO 2: 100% of the students assessed performed at the proficiency level. (project) CLO 3: 100% of the students assessed performed at the proficiency level. (exam) CLO 3: 100% of the students assessed performed at the proficiency level. (project) CLO 4: 100% of the students assessed performed at the proficiency level. (exam) CLO 4: 100% of the students assessed performed at the proficiency level. (project) CLO 5: 100% of the students assessed performed at the proficiency level. CLO 6: 100% of the students assessed performed at the proficiency level.
Spring 2014	CT124	CLO 1,2,3,4,5,6 – PLO 1 CLO 1,2,3,4,5,6 – PLO 2 CLO 1 – PLO 5	CLO 1: 60% of the students assessed performed at the proficiency level. (project) CLO 1: 100% of the students assessed performed at the proficiency level. (project) CLO 1: 100% of the students assessed performed at the proficiency level. (exam) CLO 2: 100% of the students assessed performed at the proficiency level. (project) CLO 2: 100% of the students assessed performed at the proficiency level. (exam) CLO 3: 100% of the students assessed performed at the proficiency level. (exam) CLO 4: 100% of the students assessed performed at the proficiency level. (exam) CLO 5: 60% of the students assessed performed at the proficiency level. (project) CLO 5: 100% of the students assessed performed at the proficiency level. (exam) CLO 6: 60% of the students assessed performed at the proficiency level. (project) CLO 6: 100% of the students assessed performed at the proficiency level. (project) CLO 6: 100% of the students assessed performed at the proficiency level. (exam)
Spring 2014	CT222	CLO 1 – PLO 1 CLO 2 – PLO 2 CLO 3 – PLO 3 CLO 4 – PLO 4 CLO 5 – PLO 5	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: 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.
Spring 2014	PL214	CLO 3,4 - PLO 1 CLO 1,2,3,4,5,6 – PLO 4 CLO 1,2,3,6 – PLO 5	CLO 1: 83% of the students assessed performed at the proficiency level. (project) CLO 1: 100% of the students assessed performed at the proficiency level. (project) CLO 1: 100% of the students assessed performed at the proficiency level. (exam)

			<p>CLO 2: 83% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 2: 100% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 2: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 3: 100% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 3: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 4: 83% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 4: 100% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 4: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 5: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 6: 83% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 6 100% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 6: 100% of the students assessed performed at the proficiency level. (exam)</p>
Spring 2014	AD210	CLO 1,2,3,4,5,6,7 – PLO 1, PLO 2, PLO3, PLO 4, PLO 5	<p>CLO 1: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 2: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 3: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 4: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 5: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 6: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 7: 100% of the students assessed performed at the proficiency level.</p>
Spring 2014	BP115	<p>CLO 1,2,3,4,5 – PLO 1</p> <p>CLO 3,4 – PLO 2</p> <p>CLO 3,4, PLO 3</p> <p>CLO 3,4 – PLO 4</p> <p>CLO 4,5 – PLO 5</p>	<p>CLO 1: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 2: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 3: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 4: 100% of the students assessed performed at the proficiency level.</p> <p>CLO 5: 100% of the students assessed performed at the proficiency level.</p>

Year 2: School Year **Fall 2014 to Summer 2015**

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2014	AD120	<p>CLO 1,2,3,4,5 – PLO 1</p> <p>CLO 2,3,4,5 – PLO 2</p> <p>CLO 3,4,5 – PLO 3</p> <p>CLO 4 – PLO 4</p>	Not assessed – not offered
Fall 2014	CT112	<p>CLO 1,2,3,4,5 - PLO 2</p> <p>CLO 1 - PLO 3</p> <p>CLO 1 - PLO 4</p> <p>CLO 1 - PLO 5</p>	<p>CLO 1: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 1: 88% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 2: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 2: 88% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 3: 100% of the students assessed performed at the proficiency level. (exam)</p> <p>CLO 3: 88% of the students assessed performed at the proficiency level. (project)</p> <p>CLO 4: 100% of the students assessed performed at the proficiency level.</p>

			CLO 7: 100% of the students assessed performed at the proficiency level.
Spring 2015	BP115	CLO 1,2,3,4,5 – PLO 1 CLO 3,4 – PLO 2 CLO 3,4, PLO 3 CLO 3,4 – PLO 4 CLO 4,5 – PLO 5	Not assessed – not offered
Summer 2015	CT222	CLO 1,2 – PLO 1,2,3,4,5	CLO 1: 100% of the students assessed performed at the proficiency level CLO 2: 100% of the students assessed performed at the proficiency level

Year 3: School Year Fall 2015 to Summer 2016

Semester Assessed	Course Assessed	CLO - PLO Mapping	Results of Assessments
Fall 2015	AD120	CLO 1,2,3,4,5 – PLO 1 CLO 2,3,4,5 – PLO 2 CLO 3,4,5 – PLO 3 CLO 4 – PLO 4	CLO 1: 67 % of the students assessed performed at the proficiency level. CLO 2: 100 % 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.
Fall 2015	CT112	CLO 1,2,3,4,5 - PLO 2 CLO 1 - PLO 3 CLO 1 - PLO 4 CLO 1 - PLO 5	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: 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.
Fall 2015	CT113	CLO 1 – PLO 1 CLO 1,2,3,4,6 – PLO 2 CLO 1,5 – PLO 3 CLO 1 - PLO 4 CLO 1 – PLO 5	CLO 1: 80% of the students assessed performed at the proficiency level. CLO 2: 80% of the students assessed performed at the proficiency level. CLO 3: 80% of the students assessed performed at the proficiency level. CLO 4: 80% of the students assessed performed at the proficiency level. CLO 5: 80% of the students assessed performed at the proficiency level.
Fall 2015	CT115	CLO 1,2,3,4,5,6,7 – PLO 1 CLO 1,2,3,4,5,6,7 – PLO 2 CLO 1,2,6,7 – PLO 3 CLO 1 – PLO 4 CLO 1,2,3 – PLO 5	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: 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. CLO 6: 100% of the students assessed performed at the proficiency level. CLO 7: 100% of the students assessed performed at the proficiency level.
Fall 2015	MS101	CLO 1,3,4 – PLO 1 CLO 1,2,3,4 - PLO 3 CLO 1 - PLO 5	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: 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.
Fall 2016	CT212	CLO 1,2,3,4,5 – PLO 1 CLO 1,2,3,4,5 – PLO 5	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: 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.
Spring 2016	CT122	CLO 1,2,3,4,5 – PLO 1 CLO 1,2,3,4,5 – PLO 2 CLO 1,2 – PLO 5	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: 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.
Spring 2016	CT123	CLO 1,2,3,4,5,6 – PLO 1 CLO 1,2,3,4,5,6 – PLO 2 CLO 1 – PLO 5	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: 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. CLO 6: 100% of the students assessed performed at the proficiency level.
Spring 2016	CT124	CLO 1,2,3,4,5,6 – PLO 1 CLO 1,2,3,4,5,6 – PLO 2	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 1 – PLO 5	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. CLO 6: 100% of the students assessed performed at the proficiency level.
Spring 2016	PL214	CLO 3,4 - PLO 1 CLO 1,2,3,4,5,6 – PLO 4 CLO 1,2,3,6 – PLO 5	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: 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. CLO 6: 100% of the students assessed performed at the proficiency level.
Spring 2016	AD210	CLO 1,2,3,4,5,6,7 – PLO 1, PLO 2, PLO3, PLO 4, PLO 5	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: 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. CLO 6: 100% of the students assessed performed at the proficiency level. CLO 7: 100% of the students assessed performed at the proficiency level.
Spring 2016	BP115	CLO 1,2,3,4,5 – PLO 1 CLO 3,4 – PLO 2 CLO 3,4, PLO 3 CLO 3,4 – PLO 4 CLO 4,5 – PLO 5	CLO 1: 57% of the students assessed performed at the proficiency level. CLO 2: 43% of the students assessed performed at the proficiency level. CLO 3: 71% of the students assessed performed at the proficiency level. CLO 4: 86% of the students assessed performed at the proficiency level. CLO 5: 71% of the students assessed performed at the proficiency level.

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

Fall 2013 showed AD120 having very low percentages of students reaching the proficiency level. However, when the course was offered again in fall 2015, all student were able to reach the proficiency level except with CLO 1. Motivation and irregular attendance contributed to the low percentage as well as lack of materials on island. To help students gain skills needed for CLO 1 students will be given more sketching assignments.

In spring 2016 BP115 students struggled with some of the skills. CLO 1 and CLO 2 show that the benchmark of 70% was not met. However, assessment of spring 2014 showed that students were able to reach the proficiency level. Students seemed to be less motivated in spring 2016 so the instructor is planning on developing activities that will help motivate students more.

Most CT courses have labs so students work on projects and improve their skills during this time. The instructor plans on continuing to have projects for the students so that hands on practice can continue.

A number of CT required program courses do need to be reviewed and updated as necessary.

IV. Program Learning Outcomes (PLOs) Assessment

Program Learning Outcomes Assessment Results

List PLOs	Proficiency Level	Results of Assessments
PLO 1	AD120 CLO 1,2,3,4,5 – 67% CT113CLO1 – 88% CT115CLO1,2,3,4,5, – 94% CT115CLO1,2,3,4,5,6,7 – 83% CT212CLO1,2,3,4,5 – 100% MS101CLO1,3,4 – 93% MS101CLO1,3,4 – 100% CT122CLO1,2,3,4,5 – 100% CT123CLO1,2,3,4 – 100% CT123CLO1,2,3,4,5,6 – 96% CT124CLO1,2,3,4,5,6 – 96% CT124CLO1,2,5,6 – 80% CT222CLO1,2 – 100% PL214CLO3,4 – 83% PL214CLO3,4 – 94% AD210CLO1,2,3,4,5,6,7 – 100% BP115CLO1,2,3,4,5 – 83%	87% of the students assessed performed at the proficiency level. Students were assessed through projects and exams.
PLO 2	AD120 CLO 2,3,4,5 – 65% CT112CLO1,2,3,4,5 – 94% CT112CLO1,2,4 – 82% CT113CLO1,2,3,4,6 – 88% CT115CLO1,2,3,4,5,6,7 – 94% CT115CLO1,2,3,4,5,6,7 – 83% CT122CLO1,2,3,4,5 – 100% CT123CLO1,2,3,4,5,6 – 96% CT123CLO1,2,3,4 – 100% CT124CLO1,2,3,4,5,6 – 96% CT222CLO1,2 – 100% AD210CLO1,2,3,4,5,6,7 - 100% BP115CLO3,4 – 90%	91% of the students assessed performed at the proficiency level. Students were assessed through projects and exams.
PLO 3	AD120CLO 3,4,5 – 64% CT112CLO1 – 82% CT112CLO1 – 94% CT113CLO1,5 – 88% CT115CLO1,2,6,7 – 88% CT115CLO1,2,6,7 – 83% MS101CLO1,2,3,4 – 94% MS191CLO1,2,3,4 – 80% CT222CLO1,2,3 – 100% AD210CLO1,2,3,4,5,6,7 - 100% BP115CLO3,4 – 90%	88% of the students assessed performed at the proficiency level. Students were assessed through projects and exams.
PLO 4	AD120CLO 4 – 54% CT112CLO1 – 82% CT112CLO1 – 94% CT113CLO1 – 88% CT115CLO1 – 94% CT115CLO1 – 83% CT222CLO1,2,4 -100% PL214CLO1,2,3,4,5,6 – 92% PL2141,2,3,4,5,6 – 94% AD210CLO1,2,3,4,5,6,7 – 100% BP115CLO3,4 – 90%	88% of the students assessed performed at the proficiency level. Students were assessed through projects and exams.
PLO 5	CT112CLO1 – 82% CT112CLO1 – 94%	92% of the students assessed performed at the proficiency level. Students were assessed through projects and exams.

CT113CLO1 – 88% CT115CLO1,2,3 – 94% CT115CLO1,2,3 – 83% CT212CLO1,2,3,4,5 – 100% MS101CLO1 – 93% MS101CLO1 – 80% CT122CLO1,2 – 100% CT123CLO1 – 96% CT123CLO1 – 100% CT124CLO1 – 96% CT124CLO1 – 80% CT222CLO1,2,5 – 100% PL214CLO1,2,3,6 – 96% PL214CLO1,2,3,6 – 92% AD210CLO1,2,3,4,5,6,7 – 100% BP115CLO4,5 – 90%	
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Provide Summary of Program Learning Outcomes Assessments in the box below. Summary should include analysis of this cycle with previous cycles; how assessment results have led to major decisions made to support the improvement of program's student learning and student achievement.

Throughout the program, students were assessed through projects and exams. The assessment for the internship course is based on tasks given to the intern students by the supervisors at the job site. Students have performed at the proficiency level for all 5 of the PLOs. Only one course had students performing below the proficiency level in all CLOs. This is a drafting course. However, the students were able to master the PLO skills in other courses.

Since the last program review, students have improved in PLO 1, PLO 2 and PLO 5. PLO 3 and PLO4 declined slightly. No action is needed at this time to change the PLOs

V. Evaluation of Previous Program Review Action Plan/s

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

Action Plan Activity/Objectives	Status Complete/Ongoing/In complete	Updates of Action Plan/s (Report action plan individually.)
Review and update all program courses	Partially completed	The rest of the courses need to be reviewed and updated as necessary.
Continue to improve class scheduling	completed	The revised course scheduling as explained above seems to be helping students succeed.
Increase student success in CT212, AD120 and BP115	Ongoing	Students still struggle with BP115 but AD120 and CT212 have increased proficiency rating.
Improve student performance in General Ed courses	Ongoing	There are two tutoring labs for students to take advantage of.
Continue to improve student		

facilities to include shower facility at least.	Ongoing	Lockers have been provided
Continue to upgrade shop equipment and establish a preventative maintenance schedule	Ongoing	Some equipment has been replaced. Still need to replace band saw, bench planer, lath,
Establish Construction Department Safety Manual and Accident Procedures Manual and Accident Log	Ongoing	This was an ongoing plan carried over from the first program review. Since the turnover in faculty this review cycle, the manual is not yet complete.
Identify professional development opportunities	Ongoing	The new instructor has received some training.
Research and attend conferences and workshops for staff development	Ongoing	The new instructor is attending on island workshops and PCC courses working towards obtaining a bachelor's degree.
Bachelor's degree	completed	The former instructor completed this plan.

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

A lot of the plans are ongoing from the last program review. For example, due to the change in course scheduling, students are having better success rates in program courses. This will continue until a need arises for a change in the schedule again. Students are being referred for tutoring by general education faculty when there is a need and this will continue. However, general education courses are not fully completed prior to taking required program courses. They are taken throughout the program period as they fit into student semester schedules of courses. Program instructors also refer students for tutoring and counseling when needed and this also will continue.

The shop has lockers for students to keep their tools safe and other personal belongings. Showers have not yet been provided. Nor has a safety manual been developed but instructors discuss safety issues in each program course as appropriate. CT112 has a newly developed textbook which covers basic construction safety and it is scheduled first semester first year.

Professional development is always ongoing with program faculty. The previous instructor completed his bachelor's degree before retiring. The current instructor has taken NCCER instructor training courses and recently completed an updated NCCER training. He is certified to teach NCCER courses in his field. He is also taking PCC general education courses in preparation for enrollment into a bachelor's degree program. In addition, he attends on campus training in assessment and other areas.

VI. Action Plans

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

Action Plan	How will this action plan improve	Needed Resources	Timeline
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Activity/Objectives	student learning outcomes? (CLO, PLO, ILO)	(if any)	
Continue with current scheduling of CT courses	This has already shown success with student completion of courses and better student achievement rates.	none	Every semester
Continue referring students to tutoring centers and advisors as needed.	Students who are struggle with course concepts will be able to receive additional help. This is needed more for general education courses.	none	Every semester
Purchase instructional videos	Students grasp concepts better when they have visual aids, especially for concepts that cannot be done or shown in a laboratory setting	Need to be purchased	ASAP
Upgrade tools, especially the band saw, bench planer, wood lathe	These tools are old and outdated. Students cannot safely practice the skills needed on the lathe and the other tools are outdated versions. Students need to practice on the same kinds and brands that they will need to use once hired in the field.	Need to be purchased	ASAP
Textbooks need to be developed for all courses.	The current textbook is used for all construction course with labs except for CT112. It is difficult for students to grasp some of the concepts. Developed textbooks such as the newly developed CT112 will help students gain the knowledge and understanding of the courses' concepts better.	None – instructors can develop the textbooks if allotted time.	ASAP
Professional development and training	The instructor needs to stay up to date with the construction field and also new teaching strategies.	Training cost	When available

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

Some of the action plans are ongoing and continuing from the previous program review. These are continuing with the current course schedule for program courses and continuing to have students referred to tutoring centers and advisors as needed.

The creation of the CT112 textbook has helped students understand more clearly the concepts of the

CT112 course. The current textbook is used for the other CT courses except Construction Management and it is difficult in some areas for students to understand fully. Developing textbooks for the remaining CT courses will help students understand the construction concepts taught in the courses more easily.

Several action plans require financial support. Some of the tools are outdated and worn out. Especially needed is a band saw, a bench planer, and a wood lathe. The lathe no longer locks securely so it is not safe to use. The band saw and bench planer are outdated and have not been replaced since the program began. Portable tools can be purchased if preferred which will cost less.

Instructional videos will also be a program expense. However, students cannot practice all the skills used in the construction field. For example, roofing skills cannot usually be practiced but with a video, students can watch a roof being completed.

Professional development will help the instructor stay updated in the construction field and also help with teaching strategies.

VII. Resource Requests

Itemize resource request below.

Type of Resource	Detailed Description	Estimated Amount Requested	Justification
Personnel			
Facilities			
Equipment	Lathe, bench planer, band saw	\$20,000 or \$10,000 (portable versus permanent shop equipment)	To replace worn and outdated tools so that students can practice their skills safely and with updated tools that are now used.
Supplies	videos	\$300	Visual aids help students grasp concepts.
Software			
Training	Construction field training and also training with teaching strategies and assessment.	\$10,000	To assist instructor in teaching the most current construction trends and also give him skills in teaching methods, strategies and assessment.
Other			
Total		\$30,300.00	

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



The request for updated equipment will assist student success with the course and program learning outcomes. While most students are reaching the proficiency levels for most of the course learning outcomes, they are not always able to practice the skills that they need. For example, round table legs can no longer be part of their learning as the wood lathe does not securely lock any more. Other tools are outdated and more modern ones will be used on job sites. Students need to practice on the models

that are currently being used in Micronesia.

Videos will assist students by having them not only read concepts but also see construction workers perform the skills or concepts.

Professional development will help the new instructor gain knowledge in the teaching field and also keep him abreast of any changes in the construction field.

**Construction Technology (CT)
ILOs – PLOs – CLOs Mapping**

ILOs  PLOs 	ILO 1 Critical Thinking and Problem Solving	ILO 2 Communication	ILO 3 Quantitative and Technological Competence	ILO 4 Diversity	ILO 5 Civic Responsibility	ILO 6 Aesthetics
<p align="center">PLO 1 Student will demonstrate blueprint reading skills in residential construction.</p>	AD120 – CLO 1	AD120 – CLO 1	AD120 – CLO 1	AD 120 – CLO 1	AD 120 – CLO 1	AD 120 – CLO 1
	AD120 – CLO 2	AD120 – CLO 2	AD120 – CLO 2	AD 120 – CLO 2	AD 120 – CLO 2	AD 120 – CLO 2
	AD120 – CLO 3	AD120 – CLO 3	AD120 – CLO 3	AD 120 – CLO 3	AD 120 – CLO 3	AD 120 – CLO 3
	AD120 – CLO 4	AD120 – CLO 4	AD120 – CLO 4	AD 120 – CLO 4	AD 120 – CLO 4	AD 120 – CLO 4
	AD120 – CLO 5	AD120 – CLO 5	AD120 – CLO 5	AD 120 – CLO 5	AD 120 – CLO 5	AD 120 – CLO 5
	AD210 – CLO 1	AD210 – CLO 1	AD210 – CLO 1	AD 210 – CLO 1	AD 210 – CLO 1	AD 210 – CLO 1
	AD210 – CLO 2	AD210 – CLO 2	AD210 – CLO 2	AD 210 – CLO 2	AD 210 – CLO 2	AD 210 – CLO 2
	AD210 – CLO 3	AD210 – CLO 3	AD210 – CLO 3	AD 210 – CLO 3	AD 210 – CLO 3	AD 210 – CLO 3
	AD210 – CLO 4	AD210 – CLO 4	AD210 – CLO 4	AD 210 – CLO 4	AD 210 – CLO 4	AD 210 – CLO 4
	AD210 – CLO 5	AD210 – CLO 5	AD210 – CLO 5	AD 210 – CLO 5	AD 210 – CLO 5	AD 210 – CLO 5
	AD210 – CLO 6	AD210 – CLO 6	AD210 – CLO 6	AD 210 – CLO 6	AD 210 – CLO 6	AD 210 – CLO 6
	AD210 – CLO 7	AD210 – CLO 7	AD210 – CLO 7	AD 210 – CLO 7	AD 210 – CLO 7	AD 210 – CLO 7
	BP115 – CLO 1	BP115 – CLO 1	BP115 – CLO 1	BP 115 – CLO 1	BP 115 – CLO 1	BP 115 – CLO 1
	BP115 – CLO 2	BP115 – CLO 2	BP115 – CLO 2	BP 115 – CLO 2	BP 115 – CLO 2	BP 115 – CLO 2
	BP115 – CLO 3	BP115 – CLO 3	BP115 – CLO 3	BP 115 – CLO 3	BP 115 – CLO 3	BP 115 – CLO 3
	BP115 – CLO 4	BP115 – CLO 4	BP115 – CLO 4	BP 115 – CLO 4	BP 115 – CLO 4	BP 115 – CLO 4
	BP115 – CLO 5	BP115 – CLO 5	BP115 – CLO 5	BP 115 – CLO 5	BP 115 – CLO 5	BP 115 – CLO 5
	CT 113 – CLO 1	CT 113 - CLO 1	CT 113 – CLO 1	CT 113 – CLO 1	CT 113 – CLO 1	CT113 – CLO 1
	CT 115 – CLO 1	CT212 – CLO 1	CT 115 – CLO 1	CT 122 – CLO 1	CT 122 – CLO 1	CT 212 – CLO 1
	CT 115 – CLO 2	CT212 – CLO 2	CT 115 – CLO 2	CT 122 – CLO 2	CT 122 – CLO 2	CT 212 – CLO 2
	CT 115 – CLO 3	CT212 – CLO 3	CT 115 – CLO 3	CT 122 – CLO 3	CT 122 – CLO 3	CT 212 – CLO 3
	CT 115 – CLO 4	CT212 – CLO 4	CT 115 – CLO 4	CT 122 – CLO 4	CT 122 – CLO 4	CT 212 – CLO 4
	CT 115 – CLO 5	CT212 – CLO 5	CT 115 – CLO 5	CT 122 – CLO 5	CT 122 – CLO 5	CT 212 – CLO 5
	CT 115 – CLO 6	CT 222 – CLO 1	CT 115 – CLO 6	CT 123 – CLO 1	CT 123 – CLO 1	CT 222 – CLO 1
	CT 115 – CLO 7	CT222 – CLO 2	CT 115 – CLO 7	CT 123 – CLO 2	CT 123 – CLO 2	CT222 – CLO 2
	CT 122 – CLO 1		CT 122 – CLO 1	CT 123 – CLO 3	CT 123 – CLO 3	
	CT 122 – CLO 2		CT 122 – CLO 2	CT 123 – CLO 4	CT 123 – CLO 4	
	CT 122 – CLO 3		CT 122 – CLO 3	CT 123 – CLO 5	CT 123 – CLO 5	
	CT 122 – CLO 4		CT 122 – CLO 4	CT 123 – CLO 6	CT 123 – CLO 6	
	CT 122 – CLO 5		CT 122 – CLO 5	CT 124 – CLO 1	CT 124 – CLO 1	
	CT 123 – CLO 1		CT 123 – CLO 1	CT 124 – CLO 2	CT 124 – CLO 2	
	CT 123 – CLO 2		CT 123 – CLO 2	CT 124 – CLO 3	CT 124 – CLO 3	
	CT 123 – CLO 3		CT 123 – CLO 3	CT 124 – CLO 4	CT 124 – CLO 4	
	CT 123 – CLO 4		CT 123 – CLO 4	CT 124 – CLO 5	CT 124 – CLO 5	
	CT 123 – CLO 5		CT 123 – CLO 5	CT 124 – CLO 6	CT 124 – CLO 6	
	CT 123 – CLO 6		CT 123 – CLO 6	CT212 – CLO 1	CT212 – CLO 1	
	CT 124 – CLO 1		CT 124 – CLO 1	CT212 – CLO 2	CT212 – CLO 2	

	CT 212 – CLO 4 CT 212 – CLO 5 CT 222 – CLO 1 CT 222 – CLO 1 CT222 – CLO 2 MS 101 – CLO 1 PL 214 – CLO 1 PL 214 – CLO 2 PL 214 – CLO 3 PL 214 – CLO 6		CT 212 – CLO 4 CT 212 – CLO 5 CT 222 – CLO 1 CT222 – CLO 2 MS 101 – CLO 1 PL 214 – CLO 1 PL 214 – CLO 2 PL 214 – CLO 3 PL 214 – CLO 6	CT222 – CLO 2	CT222 – CLO 2	
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Construction Technology Program Course Learning Outcomes (CLOs)

Upon successful completion of the course, students will be able to...

AD 120: Introduction to Architectural Drafting

- CLO1: Freehand sketch a three dimensional pictorial drawings of a complex object.
- CLO 2: Freehand sketch orthographic projections of a simple structure
- CLO 3: Draw a plan and elevations of a simple house.
- CLO 4: Dimension a floor plan
- CLO 5: Draw a roof framing plan.

AD 210: Computer Aided Drafting

- CLO 1: Start a drawing and draw and edit lines and geometric shapes
- CLO 2: Make and insert blocks.
- CLO 3: Place text on a drawing.
- CLO 4: Place dimension of a drawing.
- CLO 5: Create, manage and use layers.
- CLO 6: Insert and manage external references.
- CLO 7: Use paper space for creating drawings.

BP 115: Blueprint Reading for Construction

- CLO 1: Freehand Sketch a three dimensional pictorial drawings of a complex object.
- CLO 2: Freehand sketch orthographic projection of a simple structure
- CLO 3: Identify a building's features, materials and types of construction form a set of working drawings.
- CLO 4: Determine dimensions from a set of working drawings.
- CLO 5: Interpret notes and specification.

CT 112 Construction, Safety Tools & Equipment

- CLO 1: Apply personal and work place safety.
- CLO 2: Demonstrate proper use of hand tools.
- CLO 3: Maintain hand tools.
- CLO 4: Identify demonstrate proper us of power tools and shop equipment.
- CLO 5: Maintain power tools and shop equipment.

CT 113: Introduction to Construction

- CLO1: Recognize various careers in construction industry.
- CLO 2: Select local and foreign wood products and classify them according to their appropriate use.
- CLO 3: Select proper sawing, drying, and handling of wood products.
- CLO 4: Select various non-wood products used in building construction.
- CLO 5: Estimate concrete, lumber, and plywood quantities required in building construction.

CT 115: Footing & Foundation

- CLO 1: Interpret site plan, foundation plan, and floor plan.
- CLO 2: Select footing and foundation materials.
- CLO 3: Prepare building site, erect batter boards, and layout and install building and foundation lines.
- CLO 4: Layout and excavate footing and foundation trench and set-up reinforcement.
- CLO 5: Set up footing and foundation reinforcement and install.
- CLO 6: Construct reinforced concrete and concrete blocks foundation wall.
- CLO 7: Mix, pour, and finish concrete.

CT 122: Floor, Wall, & Ceiling Framing

- CLO 1: Interpret Floor Plan, Floor Framing Plan, Wall Framing Plan, and Ceiling Framing Plan.
- CLO 2: Estimate floor, wall, and ceiling framing materials.
- CLO 3: Layout and install selected floor frames.
- CLO 4: Layout and install selected wall and rough opening frames.
- CLO 5: Layout and install selected ceiling frames.

CT 123: Roof Framing & Exterior Finishing

- CLO 1: Interpret roof framing plan and exterior detail.
- CLO 2: Select and installs roof frames.
- CLO 3: Select and install roofing materials.
- CLO 4: Select and install exterior wall sidings and cornice coverings.
- CLO 5: Select and install exterior door and windows.
- CLO 6: Apply exterior finishing.

CT 124: Interior Trim & Cabinet Making

- CLO 1: Interpret interior finishing details and cabinetry working drawings.
- CLO 2: Select and install interior trims and moldings.
- CLO 3: Select and install interior doors.
- CLO 4: Layout and construct interior stairs.
- CLO 5: Layout and construct various cabinetry products.
- CLO 6: Apply interior finishing

CT 212: Construction Management

- CLO 1: Prepare a schedule for a proposal/bid for the construction of a house in Palau.
- CLO 2: Develop a building construction schedule for Residential Building.
- CLO 3: Prepare estimates for Residential Building
- CLO 4: Prepare contract documents for Residential Building
- CLO 5: Evaluate construction health and safety on a construction site.

CT222: Internship

CLO 1: Demonstrate proper employee behaviors and work habits.

CLO 2: Perform carpentry/construction tasks as assigned by a site supervisor.

MS 101: Basic Masonry/Concrete Work

CLO 1: Select commonly used masonry products.

CLO 2: Mix concrete and mortar manually and mechanically.

CLO 3: Layout and construct a block wall with plaster finish.

CLO 4: Select, layout, and install ceramic tiles

CLO 5: Pour and finish concrete surface.

PL 214: Residential Plumbing

CLO 1: Apply personal workplace safety.

CLO 2: Use and maintain plumbing tools.

CLO 3: Layout plumbing diagram.

CLO 4: Select, layout, and connect pipes and fittings.

CLO 5: Install plumbing fixtures.

CLO 6: Inspect plumbing system.

Construction Technology Program Learning Outcomes (PLOs)**Upon successful completion of the program, students will be able to:**

PLO 1: Demonstrate blueprint-reading skills in residential construction.

PLO 2: Demonstrate carpentry skills in residential construction.

PLO 3: Demonstrate masonry skills in residential construction.

PLO 4: Demonstrate plumbing skills in residential construction.

PLO 5: Demonstrate basic construction management skills in residential construction.

Institutional Learning Outcomes (ILOs)**Upon successful completion of the degree program and Palau Community College life experience, students will be able to:**

ILO 1 – Critical Thinking and Problem Solving: 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.

ILO 2 – Communication: 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 settings.

ILO3 – Quantitative and Technological Competence: Use Mathematical skills appropriate to our technological society by analyzing and solving problems that are quantitative in nature and use technology for informational, academic, personal and professional needs.

ILO 4 – Diversity: Understand and appreciate differences in cultures and behaviors between the self and others by demonstrating respect, honesty, fairness, and ethical principles in both personal and professional life.

ILO 5 – Civic Responsibility: Apply the principles of civility and morality to situations in the contexts of a healthy family, work, community, environment, and world.

ILO 6 – Aesthetics: Apply numerous means of inquiry to experience and appreciate the values of arts and nature.