

# Kaua`i Community College Annual Program Review Update (APRU) for Electrical Installation and Maintenance Technology

## Program or Unit Mission Statement

The Electrical Installation and Maintenance Technology mission is to provide Kaua`i employers with a trained workforce having entry-level electrical installation and maintenance skills. To provide Students with a certificate or degree that fulfills education requirements of HRS 448E of the State of Hawaii the Hawai`i Department of Commerce and Consumer Affairs: Professional & Vocational Licensing.

Electrical Installation and Maintenance fulfills its mission by incorporating the following practices. The Program:

- Makes classes available through credit/non-credit to meet State licensure requirements;
- Delivers classes for entry level, working apprentice adults and experienced journey-people in small classes that meet the island population size;
- Provides a valuable program that contributes to the islands workforce and community needs;
- Prepares and supports electrical students by providing training that otherwise would not be available except by traveling to the mainland or other islands;
- Encourages students to stay and work on the island of Kaua`i to provide economic growth to the community.

## Part I. Program Description

<b>Date of Last Comprehensive Review</b>	November 7, 2017
<b>Date Website Last Reviewed/Updated</b>	<a href="http://info.kauai.hawaii.edu/APRU-CPR-2017/2017-APRU-Electrical-InstallationMaintenanceTechnology.pdf?_ga=2.83617682.526394286.1542652449-957405939.1541109477">http://info.kauai.hawaii.edu/APRU-CPR-2017/2017-APRU-Electrical-InstallationMaintenanceTechnology.pdf?_ga=2.83617682.526394286.1542652449-957405939.1541109477</a>
<b>Target Student Population</b>	Current Kaua`i DOE High School Seniors and 20 to 40 year olds looking to change occupations to learn a construction trade.
<b>External Factor(s) that Affected the Program or Unit</b>	Non-credit Courses offered through KCC OCET and the International Brotherhood of Electrical Workers (IBEW) compete for the same students to attend the credit program to complete the legislative requirement for education for State of Hawai`i licensure.

## Part II. Analysis of Quantitative

Indicators Workforce Alignment:

Electrical Installation & Maintenance Tech CIP Code = [46.0302](#)  
[49-2095 - Electrical and Electronics Repairers, Powerhouse, Substation, and Relay](#) [47-2111 - Electricians](#)  
[47-1011 - First-Line Supervisors of Construction Trades and Extraction Workers](#) [47-3013 - Helpers--Electricians](#)  
[49-2098 - Security and Fire Alarm Systems Installers](#) [49-9097 - Signal and Track Switch Repairers](#)

Demand Indicators		Program Year			Demand Health
		15-16	16-17	17-18	
1	New & Replacement Positions (State)	1188	1087	1125	<b>Unhealthy</b>
*2	New & Replacement Positions (County Prorated)	66	60	55	
3	Number of Majors	24	22	19	
3a	Number of Majors Native Hawaiian	7	8	5	
3b	Fall Full-Time	42%	54%	45%	
3c	Fall Part-Time	58%	46%	55%	
3d	Fall Part-Time who are Full-Time in System	4%	0%	0%	
3e	Spring Full-Time	30%	65%	47%	
3f	Spring Part-Time	70%	35%	53%	
3g	Spring Part-Time who are Full-Time in System	0%	5%	0%	
4	SSH Program Majors in Program Classes	160	237	205	
5	SSH Non-Majors in Program Classes	25	40	33	
6	SSH in All Program Classes	185	277	238	
7	FTE Enrollment in Program Classes	6	9	8	
8	Total Number of Classes Taught	6	9	7	

NOTE: New & Replacement jobs updated

## Occupational Separations and Op endings Change

Annual Report of Program Data (ARPD) acquires its workforce data from Economic Modeling Specialist, Intl (EMSI). As of June 2017, the methodology used to calculate new and replacement jobs were changed due to an update by the Bureau of Labor Statistics (BLS). Reference to the change can be found here:

- <https://www.bls.gov/emp/documentation/separations.htm>
- <https://kb.economicmodeling.com/openings-changes-set-for-2017/>

Efficiency Indicators		Program Year			Efficiency Health
		15-16	16-17	17-18	
9	Average Class Size	8	8	9	<b>Cautionary</b>
*10	Fill Rate	50.0%	51.9%	58.1%	
11	FTE BOR Appointed Faculty	1	1	1	
*12	Majors to FTE BOR Appointed Faculty	24	22	19	
13	Majors to Analytic FTE Faculty	24	22	19	
13a	Analytic FTE Faculty	1	1	1	
14	Overall Program Budget Allocation				
14a	General Funded Budget Allocation				
14b	Special/Federal Budget Allocation				
14c	Tuition and Fees				
15	Cost per SSH				
16	Number of Low-Enrolled (<10) Classes	4	7	6	

Effectiveness Indicators		Program Year			Effectiveness Health
		15-16	16-17	17-18	
17	Successful Completion (Equivalent C or Higher)	91%	96%	100%	<b>Healthy</b>
18	Withdrawals (Grade = W)	0	2	0	
*19	Persistence Fall to Spring	70%	74%	74%	
19a	Persistence Fall to Fall	52%	48%	56%	
*20	Unduplicated Degrees/Certificates Awarded	7	5	6	
20a	Degrees Awarded	4	4	3	
20b	Certificates of Achievement Awarded	6	3	1	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	4	2	3	
21	External Licensing Exams Passed				
22	Transfers to UH 4-yr	0	0	1	
22a	Transfers with credential from program	0	0	1	
22b	Transfers without credential from program	0	0	0	

Distance Indicators		Program Year		
		15-16	16-17	17-18
23	Number of Distance Education Classes Taught	0	0	0
24	Enrollments Distance Education Classes	n/a	n/a	n/a
25	Fill Rate	n/a	n/a	n/a
26	Successful Completion (Equivalent C or Higher)	n/a	n/a	n/a
27	Withdrawals (Grade = W)	n/a	n/a	n/a
28	Persistence (Fall to Spring Not Limited to Distance Education)	n/a	n/a	n/a
Perkins Indicators (2016 - 2017)		Goal	Actual	Met
29	1P1 Technical Skills Attainment	92.92	100	Met
30	2P1 Completion	51.51	50	Not Met
31	3P1 Student Retention or Transfer	81.81	86.67	Met
32	4P1 Student Placement	64.51	37.5	Not Met
33	5P1 Nontraditional Participation	23	8.33	Not Met
34	5P2 Nontraditional Completion	22.22	0	Not Met

Performance Indicators		Program Year		
		15-16	16-17	17-18
35	Number of Degrees and Certificates	10	7	4
36	Number of Degrees and Certificates Native Hawaiian	5	1	1
37	Number of Degrees and Certificates STEM	0	0	0
38	Number of Pell Recipients <sup>1</sup>	7	4	2
39	Number of Transfers to UH 4-yr	0	0	1

The Overall Program Health is **Cautionary**.

### Demand Indicators

During the last year the IBEW 1186 has been excepting application to hire 10 electricians in Kaua'i County into their program. IBEW are creating a list of electricians to hire during the next year as needed. They try to start a new group of apprentices every three years. Because the union jobs are required to train through UHCC OCET Apprenticeships using NJATC curriculum. Because of economic climate, industry positions have decreased slowly over the past five years with a few down years with New/Replacement County positions losing overall by one position. The number of related trades is not taken into account with the number of jobs available. Therefore, the program produces more majors than New and Replacement positions available for Journey-Person Electrician. The IBEW local 1186 has been on the slow side during the last three

years with large commercial building jobs down on the island. In Fall 2015 the IBEW hired 10 Apprentice Electricians starting their fourth year in January 2019. The next apprenticeship class is expected to be later this next year to begin in fall 2019 with an additional 10 job openings. Five current or former EIMT students have been accepted but not hired during this cycle. Graduates are not given preferential treatment, but are given credit for their first year of schooling that is required by the NJATC Training Alliance.

During the last year, the number of majors has decreased, from 22 down to 19. The data also shows a substantial number of full-time students have decreased from 54% to 45% while the numbers of part-time students have increased substantially from 46% to 55%. This is because of stability in the faculty teaching courses and the classes being offered on a two year cycle consistently. The number of SSH Program Majors in Program Classes have been up and down during the three year cycle with an influx of new students during the initial startup, With a high of 237 and a low of 160 but is estimated to level off during last year at 205. FTE Enrollment in Program Classes peaked in AY14-15 and is trending to level off at approximately 215 over the next five years. The total number of classes taught has increased to 8 each year, mainly due creating a standard two year pathway asked for by the administration. Demand for the EIMT Program in 2018 is Unhealthy during the last year due to the three year hiring cycle of IBEW jobs and less non-union jobs on the island and the 1<sup>st</sup> year apprentices coming from Oahu to work NECA contractors.

## Efficiency Indicators

The Average Class size for the EIMT Program has increased slightly from 8 to 10 over last three years, and hopefully shows a future upward trend with the combining the credit/non credit courses. The Fill Rate slightly increased over last three years up to 58.1% from 50.0%. As OCET courses are offered the enrollment in EIMT does go down. This year eight working electricians are taking classes through OCET in the EIMT Facilities on Tuesday-Thursday night. To make room for the OCET class no EIMT classes are currently being taught at night. During Fall 2019 classes will continue at night on Tuesday-Thursday. FTE BOR Appointed faculty remains at one, and Majors to Analytic FTE Faculty has decreased over last five years. Several sections of data were not provided in this past three years under budget allocation.

The number of Low-Enrolled classes has decreased from 7 to 6 by trying to increase recruitment rates by offering tours and speaking at the Construction Academy classes at the High Schools. The number of entry level courses has been limited to fall semester and students must now start then to begin the cycle. The amount of students taking EIMT on Kaua'i is at 5.0 per ten thousand people while it is at 0.65 on Oahu and 1.75 for the Big Island. Health Efficiency for the EIMT Program for 2017 is Cautionary.

## Effectiveness Indicators

In 2017 shows that the Successful Completion has increased slightly to 100%, which is up from the lowest of 91% in the past three years. Withdrawals have also been low overall with two during the five year cycle. One student received a job offer in the trade and began an apprenticeship and the other decided that they did not like working at heights and changed programs. Persistence fall to spring indicates an upward trend from 70% to 76% once again over

last year, although the Persistence fall to fall has increased from 48% to 56%, part of that may be attributed to high number of students starting that year trying to use their enrollment to qualify for IBEW employment. While the number of Unduplicated Degree/Certificates Awarded and Degree Awarded rose, this is due to faculty intervention. The faculty contacted students that were one to three credits short to see what the program could do to help those students finish.

The data on the Certificates of Achievement Awarded is also related to those students who were contacted. Students have been found to have completed the EIMT Certificates, but failed to change their declared major from FENG after starting. A PAR change to Building Construction Technology in fall 2017 will address this issue of low enrollment, and will allow students to select from other course offerings. The number of Transfers with and without credential from the program is nonexistent; and is not a measured positive outcome for this CTE program that has historically been a terminal a degree.

## **Distance Education (Completely On-line Classes)**

The EIMT program does not offer Distance Learning at the current time.

## **Performance Funding**

The EIMT Program shows positive upward growth in the Number of Degrees and Certificates and Number of Degrees and Certificates Native Hawaiians. The number of Pell Recipients has fluctuated over the past five years, perhaps due to the stronger economy and in direct relation to part-time students funding their own education. With the addition of the credit/non-credit courses in FY2019-2020 the number of Pell Recipients may increase. The overall cost of the OCET course is the number one reason given for not taking the licensure classes. Creating a credit/non credit (CO) that has financial aid available will help draw more students to the program. The number of Transfers to UH 4-year was at one as expected with that student deciding to continue his education.

## **Perkins Core Indicators**

The EIMT Program met the Perkins Core Indicators for Technical Skills Attainment, and Student Retention/Transfer. However, Completion, Student Retention/Transfer and Student Placement goals were not met. It is difficult to ascertain why the other four core indicators were not met as the data provided is incomplete. Nontraditional Participation and Completion has been a priority in the EIMT Program. Each class has one female in the class and has been actively involved with the labs. One female did drop out of the program when she discovered she was afraid of heights and could not climb the ladders. Our current non-traditional student has had an attendance problem and coordination of her working schedule. We have had our new Trades Tracking Coordinator working with her to make sure she stays on track to graduate. The instructor contacted all students who completed the EIMT courses and six of those students are currently enrolled to complete electives or non-electrical required classes.

## **Part III. Assessment Data (EP 5.202)**

### **Expected Level of Achievement**

The benchmarks for the program assessments are set at 70% for quizzes, exams and graded assignments given in class. The skill benchmark is Pass/Fail within three attempts. Projects with measurements must be within 1/16” inch and projects that are wired must meet NFPA 70 National Electrical Code and work when completed. This is the same standard that most states use for licensure throughout the United States.

## Course Assessment Results

The EIMT Program has completed 100% of course assessments for all courses the previous fiscal year After Spring 2017 the program coordinator volunteered to be one of the first to use viaLiveText training and EIMT Spring 2017 assessments were completed August 2017 after training was complete.

## Assessment Strategy/Instrument

A variety of methods are utilized to assess PSLOs for all ELEC/EIMT alpha courses. These include, but are not limited to quizzes and exams (multiple choice, essay questions, fill-in-the-blanks, and terminology), comprehensive projects and presentations, and/or written assignments, and most importantly skills exams of the electrical trade applications. All exams and quizzes are made using Examview and the program has over 4,000 question in the data base to choose from.

- |                                     |  |
|-------------------------------------|--|
| 1. Collaborative Project            | 2. Exam or Quiz / Embedded Questions   |
| 3. In-class Activity                | 4. Instructor Observation              |
| 5. Oral Presentation(s)             | 6. Portfolio                           |
| 7. Practical Project or Examination | 8. Self Assessments / Peer Assessments |
| 9. Skills Tests / Demonstrations    | 10. Written Products                   |

EIMT Program Student Learning Outcomes Assessment Outcomes

Electrical Industrial and Maintenance Technology PSLO's through Spring 2018	Assessed During this APRU	Type of Assessment: List of the Program Student Learning Outcomes and assessment used	Met Benchmark: Assessment findings	Changes that have been made as a result of the assessment findings
1. The ability to read a blueprint and negotiate through the drawings to layout a project.	Yes	1. Follow Blueprints in building lab projects 2. Use blueprints to complete load calculation from NEC 3. Select materials for a given job from blueprints	70% Minimum: All students completed the assessment above the minimum standard in the 70% to 95% Range	New blueprint reading software was requested in Perkins Grant from CMH Software to improve residential and motor control diagrams
2. The proper selection of materials that comply with published codes and deliver energy efficient outcomes	Yes	1. Assignment to take of material list and receive pricing and the purchase materials for on campus projects. 2. Install materials accordance to the NEC Code and local county ordinances	Pass/Fail and 70% Minimum: Installation and hands-on or instructor evaluation are evaluated daily during lab time.	Student are now required to understand materials, cost and procurement procedures for the college. More student projects needed. Labs to be built to accommodate when jobs on campus are not available.
3. The ability to maintain and care for the tools required in the electrical industry.	Yes	1. Student must pick out the tools need to perform projects and demonstrate their proper use. 2. Cleanup and care for tools and equipment. Wear proper PPE when performing task.	Pass/Fail and 70% Minimum: Students are docked points for unsafe conditions and for not using or properly taking care of tools and cleaning up PPE during class.	Students are given a tool list at the beginning of ELEC 30 and must provide their own hand tools so that they will learn to take care of them. School will only provide necessary power tools.
4. The safety procedures necessary to assess a task for hazards and the steps required to	Yes	1. All students must pass the safety exam at the beginning of each class before participating in labs. 2. As a new task is given each student is required to demonstrate the proper and safe way to complete the task.	Pass/Fail and 70% Minimum: Students are docked points for unsafe conditions and for not	More stringent safety procedures are required during class and students are not allowed to participate if not wear safety PPE. Addition safety training is given in



Electrical Industrial and Maintenance Technology PSLO's through Spring 2018	Assessed During this APRU	Type of Assessment: List of the Program Student Learning Outcomes and assessment used	Met Benchmark: Assessment findings	Changes that have been made as a result of the assessment findings
meet OSHA and State safety regulations.		3. Students are not allowed to next task without completing safety requirements.	using properly taking care of PPE during class.	every course.
5. The ability to communicate successfully in writing, orally and with computer technology.	Yes	1. Students are given written exams on each topic with a midterm and final at the end of the semester. Include are MC, TF, fill in the blank, short essay, and one long essay question. 2. National Electrical Code questions are open book in line with the national standard of being able to answer any questions within three minutes. 3. Many of the assessment are given on the computer system and require students to be computer literate.	All quizzes and exams are at 70% minimum. Students who fail the exam are allowed to retake the exam within one week. Skills exam are pass/fail, the project must work. Students are allowed to retake skills exams three times.	The software used in the program was owned by the instructor and during the last APRU the program purchased updated software licenses making all software used legal. Computer services have taken over the update and maintenance of the computer system.
6. The commitment to craftsmanship including the use of energy efficient practices, dependability and punctuality, and pride in accomplishments.	Yes	1. Students are required to be in class. Three absents are allowed per semester with 30% of grade based on attendance 2. All projects done on campus are expected to be in a professional and workman like manner as according to the NEC and the NECA.	Pass/Fail and 70% Minimum: Three absents are allowed per semester with 30% of grade based on attendance. All assignments, quizzes and exams are required to be completed. Participation in Lab must be done with assigned skills completed.	Labs that cover the tasked covered in the course material are important to make sure all skills are accomplished. Completing projects on campus are important; but must not take the place of classroom studies.

### Part IV. Results of Prior Year Action Plans (UHCCP 5.202)

Action Plan	Anticipated Outcome	Actual Outcome
EIMT Sustainability and Green Technology Project: Wire Recycling	Decreased boxes of used wire in each department and cost refunded to cover wire stripper and future wire purchased.	A wirer stripping machine was purchased out of annual budget. Students are currently recycling the wire used and it will be turned in the near future.
EIMT Replace Apple MiniMac computers and CP4005dn HP Printer in CARP 109	Less down time and increased use of educational software. More online assessments taken by students.	This item was not funded through APRU. Will be asked again this year. Software was not purchased on Perkins Grant because current machines not compatible new software. Money budgeted for software was used elsewhere and will need to be applied for in the future.
EIMT Tiny House Power and Wiring	Improved assessment data of all PSLO's and CSLO's for course during the time of construction.	Current course SLO's are not at the same point of construction as the FENG programs progress. No t enough work has been completed to have students continue to work on project
EIMT Solar Project on Container Home	Improved assessment data of all PSLO's and CSLO's for course during the time of	Funding was not provided by APRU or Foundation funds.



Action Plan	Anticipated Outcome	Actual Outcome
	construction.	Students continued to work on project using materials left over from Sustainability or other projects. Project 50% complete. PV courses were canceled this fiscal year and will continue Fall 2019. Requested again in this year APRU
EIMT Solar Project on Solar Shed Garage	Improved assessment data of all PSLO's and CSLO's for course during the time of construction.	Funding was provided by Foundation funds. PV courses were canceled this fiscal year and will continue Fall 2019. Materials will be purchased with Foundation funds Spring 2019.
EIMT Portable Lab Walls in Solar Shed East Garage	Improved assessment data of all PSLO's and CSLO's for course during the time of construction	Funding was not provided by APRU or Foundation funds. Project was put on hold and will apply for funds in future APRU.

The non-funding of the computers in the EIMT lab effected the purchasing of software for the program. All current technology and software is Windows 10 and cloud based. The current machines will not run most current software available for training. New software is also changing to yearly subscription and not for purchase. The yearly subscriptions do not allow this program to utilize these types of software programs due to small budget restraints.

## Part V. Analysis of Alignment with CPR

In the fall 2016 the Kauai Community College administration was concerned that the program was not meeting the minimum required 10 graduates per year. The suggestion of consolidation of the Carpentry, Electrical Installation and Maintenance, Facility Engineering, and Welding into a Building Construction Technology Program would help the college justify the building trades on the island of Kauai by making it possible to meet the minimum numbers required by the University of Hawaii Board of Regents Executive Policy 5.229- (Programs with Low Number of Degrees Conferred). The decision was made to modify the existing Carpentry AAS and discontinue the EIMT AAS.

This action still requires the Board of Regents approval. The creation of the Building Construction Technology Program is the action item results of those low enrollment numbers submitted to the Curriculum Committee on 9/22/2017. The establishment of the Building Construction Program is in limbo as we have not received administrative direction to proceed or revert to the previous AAS degrees and programs that are currently being used.

<b>Goal/Strategic</b>					
EIMT Low Enrollment Action Plan	Two Courses Yes One class No	Class Size 10 Students	Increased enrollment beginning 8/2018 into the Building Construction Program. Increase student enrollment at the beginning of each year.	Course enrollment was at 10 Students for two courses the remaining courses were lower than expected. Course sequencing is different than published. This affected some courses. BCT Program was tabled by the new VCAA because of changes at the BOR. Still waiting approval to move forward.	10 Students or Greater
EIMT Persistence Fall to Fall in Effectiveness Indicators	Yes	Increase percentage of Fall to Fall	Increased enrollment in second year courses ELEC 70 and ELEC 40 & 42 beginning 8/2018	The 40 & 42 class increased by two students. The EIMT 70 & 75 course is now being taught every other year to make sure classes have more students.	Increased by 8% and No Withdrawals
EIMT Perkins Indicators Not Met	No	Increase Non-traditional Students by 1	Increased enrollment of woman from an average of one to two per semester beginning 8/2018 into the building Construction Program.	One woman is currently enrolled. Visits were made to the Construction Academy by J Andrews and D Lang and enrollment increased, but nontraditional stayed level.	2 Non-traditional Students per semester

\*\*All Strategic Goals and Priorities are Aligned to the College Mission.

**Describe any impacts these goals had on your health indicator(s).**

The goals that the EIMT program has set for the year is to improve our Perkins Indicators and access more Perkins funds to improve the program training labs and outcomes. EIMT will also continue last year’s goal to improve low enrollment and fall to fall persistence

<b>Goal</b>	<b>Strategic Goal/Priority (List number)</b>	<b>Benchmark</b>	<b>Desired Outcome</b>	<b>Unit of Measure</b>	<b>Year(s) Implemented</b>
EIMT Low Enrollment Action Plan	Goal #1, #17	Class Size 10 Students	10 Students or Greater	Demand Indicators	2018/19
EIMT Persistence Fall to Fall in Effectiveness Indicators	Goal #1, #2, #3	Increase percentage of Fall to Fall	Increased by 8% and No Withdrawals	Effectiveness Indicators	2018/19
Maintain Technical Skills Attainment	Perkins 1TP	92.92%	100%	Perkins Indicators	2018/19
Completions	Perkins 2P1	51.51%	60%	Perkins Indicators	2018/19
Student Retention or Transfer	Perkins 3P1	81.81%	90%	Perkins Indicators	2018/19
Student Placement	Perkins 4P1 Goal #8	64.51%	65%	Perkins Indicators	2018/19
Nontraditional Participation	Perkins 5P1	23%	25%	Perkins Indicators	2018/19
Nontraditional Completion	Perkins 5P2	22.22%	25%	Perkins Indicators	2018/19

**Part VI. Resource Request(s) for next year (from CPR Plan for your program or unit, or one(s) developed in Part V above if CPR was completed prior to 2018).**

If no resources are being requested, place an “X” here. \_\_\_\_\_

**Continue Year Two of EIMT Low Enrollment Action Plan (No Resources Needed)**

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	University of Hawaii Board of Regents Executive Policy 5.229- (Programs with Low Number of Degrees Conferred) Raise enrollment to 10 per class in all first and second semester (Efficiency Indicators- Line 9) classes and Completers to 10 per year (Effectiveness Indicators- Line 20).
	Kaua'i Community College fulfills its mission by incorporating the following practices. The College: <ul style="list-style-type: none"> <li>• Delivers educational opportunities on campus <b>in small classes</b>, in the community, internationally, and through distance learning;</li> <li>• <b>Provides programs that address workforce</b> and community needs;</li> </ul>
<b>Action Item</b>	Increase number of enrollments, certificates and degree during the next five years by an average of one to two students per year. Combine Electrical Installation and Maintenance, Carpentry, Facility Engineer, Welding and Computer Aided Design in to one program called Building Construction Technology.
<b>Resource(s) Request</b>	Marketing materials, new web page design, DOE Secondary School Visits and marketing through Construction Academy, Approval of Curriculum and Assessment Committees.
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Duke Lang, Gary Ellwood, Web Master, Construction Academy Faculty, Trades Program Career Track Coordinator, VCAA Hariss
<b>Timeline</b>	4/2018 Building Construction PAR submitted to BOR 6/30/2018 Building Construction PAR Tabled by VCAA 12/31/2018 Building Construction PAR agreement to proceed by Administration 2/2019 Design new web page and marketing Materials 5/2019 Visit and recruit at each DOE Secondary School on the Island 8/2019 Track student enrollment and contact those interested on Spring visit. 12/2019 Track continuation of students from semester to semester and determine why any students left the program and why.
<b>Indicator of Improvement</b>	Increased enrollment beginning 8/2019 into the Building Construction Program. Increase student enrollment at the beginning of each year.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Building Construction Technology PAR and EIMT Courses changes have been submitted and 1 <sup>st</sup> approval to CCAO. Tabled by VCAA Hariss at Kauai Community College..

**Continue Year Two EIMT Persistence Fall to Fall in Effectiveness Indicators (No Resources Needed)**

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	Under Effectiveness Indicators the program needs to increase Persistence in Fall to Fall (Effectiveness Indicator 19a) by retention of students and increase 2 year completers.
<b>Action Item</b>	Gaining new students is more difficult than retaining students that are at Kauai Community College already. Determine who did not return and the reasons why. Quantify if students changed majors, found employment, or had negative personal impacts that can be addressed by Student Counseling and tracked through Student Services Software.
<b>Resource(s) Request</b>	Resources should already be available at the College Counseling and use of the software may require addition professional development to train faculty.
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Duke Lang, Trades Program Career Track Coordinator

<b>Timeline</b>	1/2019 Evaluate retention of student from Fall to Spring classes. See if students are still following suggested completion schedule. 5/2019 Recommend to students when important dates and registration is open for Fall 2018 5/2019 Encourage students to apply for scholarships and financial aid to complete school 8/2019 Track 2 <sup>nd</sup> Year student enrollment and contact those who did not return and verify reason
<b>Indicator of Improvement</b>	Increased enrollment in second year courses ELEC 70 and ELEC 30 & 32 beginning 8/2019
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Minimal Professional Development has been given in tracking students. A Trades Program Career Track Coordinator has been hired with Perkins funds to help with this project.

**Continue Year Two EIMT Perkins Indicators Not Met (No Resources Needed)**

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	2P1 Completion; 3P1 Student Retention or Transfer; 5P1 Nontraditional Participation; 5P2 Nontraditional Participation have on average not been met
<b>Action Item</b>	Completion of the previous action plan for Persistence in Fall to Fall (Effectiveness Indicator 19a) will take care of 2P1 and 3P1 Perkins Indicators. 5P1 and 5P2 Nontraditional Enrollments needs to be addressed. Increase marketing in our web page and marketing materials to include Woman in the Trades. During the future Apprenticeship Day in Spring 2019 a Woman in the Trades table should be set up and sponsored by the Trades Division.
<b>Resource(s) Request</b>	Marketing materials, new web page design, Guest Speaker Crystal Cruz from Construction Academy to promote Women in the Trades, Many of classes that have women can also be asked to speak at the show.
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Duke Lang, Crystal Cruz, Gordon Talbo, OCET Staff
<b>Timeline</b>	2/2019 Design new web page and marketing Materials 5/2019 Visit and recruit at each DOE Secondary School on the Island 5/2019 Women in the Trades table at apprenticeship day. 12/2019 Track continuation of women in the EIMT Program from semester to semester and determine why they left the program and why.
<b>Indicator of Improvement</b>	Increased enrollment of woman from an average of one to two per semester beginning 8/2019 into the building Construction Program.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Many of classes of EIMT have women involved. Continued support and tracking to completion is needed. A Trades Program Career Track Coordinator has been hired with Perkins funds to help with this project.

**Computers and CP4005dn HP Printer in CARP 109**

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	The current 32 computers and one CP4005dn printer were purchased in 2008 with grant money through a Solar Grant. The computer hard drives are starting to fail. The computer system was turned over to Computer Services (CS) in 2014. Printer was not repairable and can only print B/W. Students are not able to print their projects. The
	printer will not work without all usable cartridges installed. Replacement of computers needed within the next two years. Many course objectives use computer based training. Turn future and replacement and repair over to Computer Support.
<b>Action Item</b>	Replace 32 Minimac computers with a ThinkCentre M910 Tiny Computers in CARP109 as current computer have hardware problems. Replace CP4005dn printer and ink cartridges are not within the current budget limit. Turn future and replacement and repair over to Computer Support.
<b>Resource(s) Request</b>	Purchase 32 Computers with Windows 10 and load electrical software on each. 18 ea. - Main Classroom Student WorkStation 6 ea. - Lab room Desk with NIDA Trainers 6 ea. - Lab Stations with Trainers 2 ea. - Teaching Stations with Smart Board 1 ea. - Network Printer HP equivalent to CP4005dn or greater
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Computer Support
<b>Timeline</b>	12/2017 to 4/2018 Purchase Computers 9/2018 Install Computers and Software for Fall 2018 classes 12/2025 Replace computers with next generation available by Computer Support
<b>Indicator of Improvement</b>	Less down time and increased use of educational software. More online assessments taken by students.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Replacements parts have been taken out of old units as they go bad. Computer Support is current out of replacement parts and two student stations do not computers.

## EIMT Lab-Volt Trainer Replacement

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	Three Lab-Volt trainers were purchased in the Mid 90 for the EIMT program. The trainers no longer work and are unavailable for student use. All training curriculum is also missing. Each trainer is valued at the current market replacement value of \$36,000.00 each. Students currently do not have access to the technology the trainers provided.
<b>Action Item</b>	Replace non-working Capital Equipment Lab-Volt Electrical Trainers with up to date trainers at a cost of \$36,000.00 each.
<b>Resource(s) Request</b>	Request replacement funds from legislative budget for non-working training materials over \$5,000.00 if available.
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Daniel Erickson
<b>Timeline</b>	3/2019 Review legislative budget request. 4/2019 Purchase materials for the replacement equipment 6/2019 Receive trainers from vendor and complete purchasing process 12/2019 Assess students use of the trainers and evaluate their use.
<b>Indicator of Improvement</b>	Improved assessment data of all PSLO's and CSLO's for course during the time of construction.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7



<b>Current Status</b>	Trainers are currently on the Capital Outlay Inventory and are counted each year by Fiscal Department. Current Trainers are located in the classroom taking space that could be used for student use. Once Trainers are replaced they can then be cannibalized and used for part to repair other equipment the program uses. Non usable parts would be sent to metal recycler.
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## EIMT Solar Project on Container Home

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	Student currently use the container home on the farm for Solar Design in the ELEC 70 & 75 Course. EIMT would like to install PV renewable energy source on the container home to provide permanent power to the structure so that it can be used by the college. Kaua'i Community College fulfills its mission by incorporating the following practices. The College: <ul style="list-style-type: none"> <li>• Encourages innovation and promotes sustainability while perpetuating the unique history and culture of Kaua'i.</li> </ul>
<b>Action Item</b>	Provide a training project for EIMT students to apply PV Renewable energy skills by installing a standalone, battery backup system for the container home located on the KCC farm. Students will complete all installation and commissioning of the permanent system.
<b>Resource(s) Request</b>	Purchase materials for the container home project so that EIMT students can use it as a lab project.
<b>Person(s) Responsible and Collaborators</b>	James Andrews, Justin Carvalho, Daniel Erickson, Duke Lang
<b>Timeline</b>	1/2018 Design plan and develop load calculations for the structure. 3/2018 Purchase materials for the project 3/2018 to 11-2018 Install PV grid to the roof of the container home. 12/2018 Install Inverter, battery system, DC combiner and charging hardware to container home 3/2019 Commission the system and turn over to the College.
<b>Indicator of Improvement</b>	Improved assessment data of all PSLO's and CSLO's for course during the time of construction.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Funding was not provided by APRU or Foundation funds. Students continued to work on project using materials left over from Sustainability or other projects. Project 50% complete. PV courses were canceled this fiscal year and will continue Fall 2019. Requested again in this year APRU

## Portable Lab Walls in Solar Shed East Garage

<b>Program Goal &amp; Campus Strategic Goal or Priority Alignment</b>	Provide the location in the Solar Shed East Bay for student to complete electrical labs of conduit bending, wiring walls, and performing assessment skills exam for tasks are not appropriate in the classroom. The center section will be used for education equipment storage.
<b>Action Item</b>	Allow the Solar Shed East Bay for EIMT student to complete electrical skills exam for tasks that are not appropriate in the classroom. Allow the instructor to construct movable walls that can be attached permanently and moved out of the way of the main floor area. Install storage racks in the center storage area from maintenance surplus.
<b>Resource(s) Request</b>	Using supply and Perkins budgets to purchase materials to construct training walls for 10 students. Allow EIMT to use the Solar Shed area for training and storage.



<b>Person(s) Responsible and Collaborators</b>	James Andrews, Duke Lang
<b>Timeline</b>	12/2019 Design training walls to be built. 2/2019 Purchase materials 5/2019 Complete assemble and manufacturing of training walls 12/2019 Assess students use of the trainers and evaluate their use.
<b>Indicator of Improvement</b>	Improved assessment data of all PSLO's and CSLO's for course during the time of construction and after completion.
<b>PSLO Impacted</b>	1, 2, 3, 4, 5, 6, 7
<b>Current Status</b>	Current Electrical Project in the Solar Shed 95% complete and ready to be occupied. Review with Carpentry what additional work needs to be done on the Solar Shed. Designing the walls is in the beginning stages, and Perkins money is available to purchase materials. No additional electrical resources will be needed.

## Resource Implications

RESOURCES NEEDED			OUTCOMES
Initial Acquisition Cost	Annual Recurring Cost	Useful Life	(Identify and Quantify)
N/A	N/A	N/A	Continue Year Two of Low Enrollment Action Plan Marketing Materials
N/A	N/A	N/A	Continue Year Two of Persistence Fall to Fall in Effectiveness Indicators
N/A	N/A	N/A	Continue Year Two of Perkins Indicators not met
ThinkCentre M910 Tiny 128GB SSP @\$819.00 each Total \$29,448.00 Printer \$1200.00 plus \$1,00.00 for Cartridges Total <u>\$31,684.00</u>	Replacement Cartridges \$249.00 each four needed	7 Years	Replace Apple MiniMac computers with ThinkCentre M910 Tiny 128GB SSP Replace CP4005dn HP printer in CARP 109 (APRU Request)
Each Trainer estimated Cost \$36,000.00 plus \$5000.00 Shipping Total: <u>\$108,000.00</u>	N/A	20 Years	EIMT Lab-Volt Trainer Replacement
<u>\$10,000</u> for Materials	N/A	20 Years	Complete Solar Project on Container Home
<u>\$4,000</u> for Materials	\$200.00 for replacement studs, plywood and sheetrock	10 Years	Portable Lab Walls in Solar Shed East Garage (2019 Perkins Grant Request)