

Carpentry Technology



ANNUAL REPORT OF PROGRAM DATA 2021



UNIVERSITY of HAWAII®
KAUA'I
COMMUNITY COLLEGE

1. Program or Unit Description

The Carpentry Technology program provides the basic entry-level skills in the construction of buildings. Skilled carpenters are required in areas of new building construction, repair, and alteration of buildings. The program provides an introduction into the sustainable and green construction methods and materials, while offering instruction in the state's building codes for energy efficiency. This program also enhances the graduate's entry into the carpenter's apprenticeship program.

The Carpentry Technology program directly aligns with the college's mission statement of inspiring, engaging, and empowering learners and educators. Our students enter the program with little to no knowledge of carpentry and leave with a good breadth of knowledge in all areas of the building construction trade. Our students learn in and out of the classroom, and we pride ourselves in providing exceptional hand-on training project-based learning, backed up with the math, science, and English skills needed to thrive in the building construction trade.

With the Kaua'i economy changing from the pandemic, the decision has been made to consolidate the EIMT, FENG, AEC, and WELD programs with the Carpentry Program to create the Construction Program to match and articulate with the programs at Maui College and West Oahu. As far as the Building Construction Technology proposal, it was rejected last year by the Curriculum Committee and the Administration because of problems associated with Banner, Star GPS, Financial Aid, and Student Services with the merger of the program. The current proposal was submitted as part of *Ka Papa Hana Holomua: Academic Affairs Plan Fall 2021-Fall 2026* to UHCC. Part of this plan for EIMT and FENG is to stop out starting Fall 2022 and Teach Out completed by Spring 2024. To meet ACCJC standards, the Stop Out can last only 2 years and then must be completed. EIMT and FENG will no longer be available to enroll new students beginning September 1, 2022 for registration of Spring 2023 and a notice will be posted on the Website and with Student Services.

Stop Out will need BOR approval and according to VCAA we will need to create the Construction Program as proposed in *Ka Papa Hana Holomua: Academic Affairs Plan Fall 2021-Fall 2026*. The Construction Program will seek BOR approval in Spring 2024. The Carpentry Program will continue as-is until the Construction Program is approved and started to allow students to continue in the building trades. EIMT or FENG, as-is, will teach each class one more time after Fall 2022 to allow students a chance to graduate. During the proposal, any currently taught courses that are part of the Construction Program will convert to course Alpha/Numerics and titles that can be matched to the Maui College Construction Program and create those that cannot be modified to match. We are trying to match Maui's program as closely as possible so that there is a higher possibility of approval at the OVPCC and BOR and so we can articulate with Maui College and West Oahu.

Part I Program Description

Date of Last Comprehensive Review	10/31/2017
Date Website Last Reviewed/Updated	8/16/2019

Target Student Population	Current Kaua'i DOE High School Students and 20 to 40 year olds looking to change occupations to learn a construction trade. Military students looking to utilize their GI Bill.
External Factor(s) that Affected the Program or Unit	Carpentry Union, Construction Academy at DOE, Alu Like program "Kai kai a' o' Program", and internships with various contractors on island.

2. Analysis of the Program/Unit

Overall Program Health: Healthy

For the third consecutive year the Carpentry Program has an overall health of HEALTHY.

Demand Indicators- Healthy

During the last year, local union and non-union contractors have been hiring students for work on residential and small commercial projects throughout the county. Recruiting at the DOE is difficult during this academic year due to the current COVID-19 pandemic. The Construction Academy has been eliminated at the DOE, but we have begun teaching Early College at Kaua'i High School and Waimea High School beginning with CARP120B Basic Carpentry Skills. However, Kapa'a High School chose not to switch to our Early College Carpentry Program and have decided to begin their own program in coordination of Ho'akeolapono Trades Academy and Institute at Kanuikapono Public Charter School with the Hawai'i Carpenters Apprentice and Training Fund. The State and County "New & Replaced Positions" are down slightly and could be an indicator of our local Government and contractors managing their workforce as they deal with a project budget shortfall. The data of the private sector hires are not available, but through my contacts in the industry, I know there is a demand there. The private sector is projecting an improving trend in projects. With an aging building trades workforce retiring and a smaller entry level sector of students entering the building trades, demand for students will continue to grow.

During the last year, the number of majors has decreased, from 13 down to 8. The data also shows the number of full-time students almost leveled from 46% to 85% to 67% while the numbers of part-time students rose substantially from 54% to 15% to 33%. This is due to the fact that more students are going for an AAS Degree instead of a CA. The number of SSH Program Majors in Program Classes have been level and increased from 190 to 227 and down to 165. 2019 Kaua'i Community College ARPD Program: Carpentry Technology reported an increase from 7 to 9 then decreased to 6 FTE Enrollment in Program Classes. The overall reason seems to be from the continuation with in-person classes with other programs offering hybrid classes, mostly online. Students have been hesitant to attend in-person classes in the Covid-19 Pandemic.

Demand Indicators for the CARP Program for 2020-2021 are Healthy.

#	Demand Indicators	2018 - 19	2019 - 20	2020 - 21	Demand Health
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2021 Kaua'i Community College ARPD
 Program: Carpentry Technology

1	New & Replacement Positions (State)	1390	1044	1011	Healthy
2*	New & Replacement Positions (County Prorated)	91	64	71	
3	Number of Majors	12	13	8	
3a	Number of Majors Native Hawaiian	4	3	5	
3b	Fall Full-Time	46%	85%	67%	
3c	Fall Part-Time	54%	15%	33%	
3d	Fall Part-Time who are Full-Time in System	0%	0%	0%	
3e	Spring Full-Time	55%	23%	71%	
3f	Spring Part-Time	45%	77%	29%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	190	227	165	
5	SSH Non-Majors in Program Classes	12	35	0	
6	SSH in All Program Classes	202	262	165	
7	FTE Enrollment in Program Classes	7	9	6	
8	Total Number of Classes Taught	5	4	4	

Efficiency Indicators- *Progressing*

The Average Class size for the CARP Program has increased from 8 to 12 but returned to pre-pandemic numbers. The Fill Rate increased from 75% to 97.9%. and returned to 67% with FTE BOR Appointed faculty remaining at one. Three of the four Construction Academy instructors have been retained as lectures to teach the Early College Classes. Those numbers will be included on the APRD until next year. The Majors to Analytic FTE Faculty has decreased from 12 to 8. The number of Low-Enrolled classes is at 4 with more than the 50% enrollment of 12 allowed but less than the 10 listed in the report. Interest with recruited students is high and the students we have currently in the program have been better qualified to start and complete the program. It is felt that as we return to normal the Carpentry Program will be ready to train more students as the economy begins to strengthen. Students formerly headed to EIMT will be directed to the Carpentry Program. Efficiency Indicators for the CARP Program for 2020-2021 is *Progressing*.

#	Efficiency Indicators	2018 - 19	2019 - 20	2020 - 21	Efficiency Health
9	Average Class Size	8	12	8	Progressing
10*	Fill Rate	75%	97.90%	68.20%	
11	FTE BOR Appointed Faculty	1	1	1	
12*	Majors to FTE BOR Appointed Faculty	12	13	8	
13	Majors to Analytic FTE Faculty	12	13	8	
13a	Analytic FTE Faculty	1	1	1	
14	Overall Program Expenditures	\$0	\$0	\$0	
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	5	0	4	

Effectiveness Indicators- *Healthy*

Successful Completion Rate has increased from 74% to 81% dropped to 67%. Most of these students have either transferred or have taken jobs locally. Withdrawals are up two from zero then four and are within normal range as students explore the occupation. Persistence fall to spring also down from 92% to 85% then to 67%, and the Persistence fall to fall is down as well from 44% to 38% then to 29%. The stay-at-home order issued by the government in their attempt to “Flatten the Covid-19 curve” played a huge role in these numbers being down. The Unduplicated Degree/Certificates Awarded and Degree Awarded rose, and the Certificates of Achievement Awarded is 4 with AAS degree awarded at 3 with most of the students completing and one student coming back this year. Effectiveness Indicators for the CARP Program for 2020-2021 is *Healthy*.

#	Effectiveness Indicators	2019 - 20	2019 - 20	2020 - 21	Effectiveness Health
17	Successful Completion (Equivalent C or Higher)	74%	81%	67%	<i>Healthy</i>
18	Withdrawals (Grade = W)	4	0	2	
19*	Persistence Fall to Spring	92%	85%	67%	
19a	Persistence Fall to Fall	44%	38%	29%	
20*	Unduplicated Degrees/Certificates Awarded	5	0	4	
20a	Degrees Awarded	4	0	3	
20b	Certificates of Achievement Awarded	3	0	4	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	0	0	0	
21	External Licensing Exams Passed 1				
22	Transfers to UH 4-yr	0	0	1	
22a	Transfers with credential from program	0	0	0	
22b	Transfers without credential from program	0	0	1	

Distance Education

(Completely On-line Classes) The CARP program does not offer Distance Learning at the current time.

#	Distance Indicators	2018 - 19	2019 - 20	2020 - 21	
23	Number of Distance Education Classes Taught	0	0	0	<i>Not Applicable</i>
24	Enrollments Distance Education Classes	0	0	0	
25	Fill Rate	0%	0%	0%	
26	Successful Completion (Equivalent C or Higher)	0%	0%	0%	
27	Withdrawals (Grade = W)	0	0	0	
28	Persistence (Fall to Spring Not Limited to Distance Education)	0%	0%	0%	

Perkins Core Indicators

The CARP Program did meet the Perkins Core Indicators for Post-Secondary Placement Student and Earned Recognized Credential were met. It is difficult to ascertain why the other indicators were not met as the data provided is incomplete. Nontraditional Participation and Completion has been a priority in the CARP Program and has those students enrolled in the program. Our Trades Tracking Coordinator working with our students helps them stay on track to graduate. All students who were expected to complete after spring 2021 and have entered the workforce.

#	Perkins Indicators	Goal	Actual	Met
29	1P1 Postsecondary Placement	0	0	Met
30	2P1 Earned Recognized Credential	33	62.5	Met
31	3P1 Nontraditional Program Concentration	N/A	N/A	N/A
32	Placeholder - intentionally blank	N/A	N/A	N/A
33	Placeholder - intentionally blank	N/A	N/A	N/A
34	Placeholder - intentionally blank	N/A	N/A	N/

Performance Indicators

As mentioned, completion rates have been a priority in the CARP Program and having those students complete the program the main goal. All students who were expected to complete after spring 2021 completed and have entered the workforce. Seven total CA and AAS is the best year we have had for completions. Although many students have moved on and this AY will be lean, next year we will have another great year.

#	Performance Indicators	2018 - 19	2019 - 20	2020 - 21
35	Number of Degrees and Certificates	7	0	7
36	Number of Degrees and Certificates Native Hawaiian	1	0	2
37	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM
38	Number of Pell Recipients ¹	4	0	2
39	Number of Transfers to UH 4-yr	0	0	1

Please use the following link to the 2021 Annual Report of Program Data (ARPD)RU 2374:

<https://uhcc.hawaii.edu/varpd/index.php?y=2021&c=KAU&t=CTE&p=2374>

3. Program Student Learning Outcomes or Unit/Service Outcomes

1. Examine blueprints sufficiently to use them to plan a project.
2. Select proper materials for a given project that comply with building standards and codes.
3. Maintain the tools required in the Construction Technology Industry.

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4. Utilize Occupational Safety and Health Administration (OSHA) and State safety regulations necessary to assess a task for hazards and the steps required to minimize risks, protecting self and others.
5. Know the application of codes and regulations in the mechanical, electrical, and carpentry fields to construct or repair and maintain these systems within a facility.
6. Communicate successfully orally and in writing using computer technology.
7. Understand, integrate, and utilize knowledge in the professional environment.
8. Demonstrate professionalism with attitudes, conduct, ethics, and work practices.

Note: The above PSLO's are for the Building Construction Technology Program. The below assessments PSLO's are from the current Carpentry Program.

PSLO	Assessed During this APRU Cycle (Y or N)	Findings	Improvements Implemented	Next Assessment Date
Examine blueprints sufficiently to use them to plan a project.	Yes	All students passed with 70%	Work on "Just in Time" Math and implemented the QM course for Trades	Annually
Select proper materials for a given project that comply with building standards and codes.	Yes	All students passed with 80%	Work on identifying proper building materials	Annually
Maintain the tools required in the Construction Technology Industry.	Yes	All students passed with 90%	Students can improve on maintaining basic hand tools more efficiently	Annually
Utilize Occupational Safety and Health Administration (OSHA) and State safety regulations necessary to assess a task for hazards and the steps required to minimize risks, protecting self and others.	Yes	All students passed with 90%	Additional Training and PPE Equipment required in shop area.	Evaluated on a daily basis
Know the application of codes and regulations in the mechanical, electrical, and carpentry fields to construct or repair and maintain these systems within a facility.	Yes	All students passed with 100%	Constant monitoring	Evaluated on a daily basis
Communicate successfully orally and in writing using computer technology.	Yes	All students passed with 70%	Students are required to write a weekly log.	Annually

Understand, integrate, and utilize knowledge in the professional environment.	Yes	All students passed with 80%	Students are required to make up tardiness after class, cleaning up.	Daily
Demonstrate professionalism with attitudes, conduct, ethics, and work practices.	Yes	All students passed with 80%	Students were evaluated with off campus instructor evaluation on job site	Weekly

4. Action Plan

The Carpentry Program will continue with the current courses and program outline through Spring 2024 to allow students from the EIMT and FENG programs to still enroll in building construction programs while the transition to the Construction Program is being implemented and approved. The instructors feel that moving the students from these programs will help increase the numbers and justify the continuance of the construction trades. The Early College trades courses will also help with recruitment and job placement as the economy recovers from the pandemic. The growth potential at Early College and the permanent hire of three instructors for the offered Early College classes will help with additional courses taught in the new Construction Program in AutoCAD, Electrical, HVAC, and Plumbing.

The consolidation of the Carpentry, Electrical Installation and Maintenance, and Facility Engineering programs was created to help the college justify the building trades on the island of Kaua'i by making it possible to meet the minimum numbers required by the UH BOR Executive Policy 5.229 Programs with Low Number of Degrees Conferred. The decision was made to modify the existing AAS Degree to allow pathways to the building construction trades merging all construction programs into a single AAS degree to match the Maui College Program. The Facility Engineering terminal CO has not had student completers as formally noted in the total student graduates and will be Stopped Out by Spring 2024. Program consolidation will involve converting the existing terminal CO into a CA so that completion rates are formally reported by UH.

The Computer Aided Design, Welding, and Construction Academy courses are added to the program to give these stand-alone courses a CO under the Construction Technology Program to help boost enrollment and to budget funds to run the courses through the Trades Division. The Computer Aided Design is articulated with the P-20 DOE Pathways and needs to be included in the proposal so those courses can transfer to the UHCC system. Welding courses will reestablish themselves because of public demand with increased AWS training standards to become an addition to the Construction degree.

Recommendations

Consolidation efforts are modeled after the UHMC Construction Technology AAS Degree while building on the strengths of the EIMT and Carpentry programs at KauCC. The following statements are our recommendations:

- Creation of pathways as a replacement for KauCC's Construction Academy for Early College and AEC classes and bring additional secondary students to the College.
- Consolidate these programs with reworked pathways as a revised plan will have full-time faculty teach courses in as many disciplines as possible, eliminating lecturers and additional staff, and combine courses that are similar under one program.
- Realizing the Hotel Industry will rebound and that a review of what courses will be needed in the future, a restructuring of course offerings and temporarily not scheduling low enrolled classes.
- Our final recommendation is to teach courses every other year with every other year start dates in areas to better utilize classroom space and staff.

Cost savings will be gained by the elimination of the EIMT Instructor in Summer 2024 through retirement. The majority of courses should be taught by tenure track salaried faculty of the existing CARP and Early College Trades programs. Minimal lecturers should be used on courses for which current faculty for Early College and individual construction courses are already in place. The potential for part-time night students should be evaluated as the change to the Construction program begins as well as returning adults seeking an occupational change or a work promotion. KauCC is the only source of training for Kaua'i residents to update their skills in the Hospitality Industry that will rebound in the coming years.

5. Resource Implications

Two Full time tenure track instructors to meet the need of Early College CARP and AEC courses and additional courses that are currently taught by an EIMT instructor and AEC, Construction Academy, FENG, and Welding lectures. This is a future request for AY 2024-2025. Although this request is for Fall 2024 it is important to replace these positions that were eliminated by budget cuts and retirement if the program is expected to continue as is.

I am NOT requesting additional resources for my program/unit.

6. Optional: Edits to Occupation List for Instructional Programs

I am requesting changes to the SOC codes/occupations listed for my program/unit.