

• UNIVERSITY OF HAWAI‘I COMMUNITY COLLEGES  
ANNUAL INSTRUCTIONAL PROGRAM REVIEW  
PROCEDURES, COMPONENTS, AND MEASURES

**Carpentry Program**

Introduction:

***Program Mission***

The mission of the Carpentry Program is to provide curricula and activities to prepare students for employment in the field of carpentry and to maximize the potential of the individual to fulfill his/her personal and career goals through development of his/her skills and abilities to meet the needs and requirements of a productive society.

***Program History***

The carpentry program’s history dates back to 1941 and Hawaii Community College’s predecessor, The Hawai‘i Vocational School. Hands-on practical applications with a focus on proper tool use, safety practices, industry standards, and strong work ethic have consistently been part of the curriculum. The program’s advisory council is active and assisted with the development of the program’s student learning outcomes. Currently, students may earn a 36-credit Certificate of Achievement and a 70-credit Associates in Applied Science degree.

In 1965, the carpentry program modified its curriculum to include building a residential home on a site designated by the Department of Hawaiian Homes Lands. The 42nd Model Home is now under construction. This project provides students with invaluable on-the-job skills and work experiences with an emphasis on safe construction practices. Its continued success is attributed to the cooperative and collaborative efforts of Hawai‘i State and County agencies, private industry and the college.

***Program Student Learning Outcomes***

- Use appropriate tools, materials and current technology to complete project.
- Practice quality workmanship while maintaining industry safety standards in a safe manner.
- Interpret, understand and apply building codes.
- Use appropriate materials, tools, equipment and procedures to construct a residential home.

***Part I. Quantitative Indicators for Program Review***

**Annual Report of Program Data for Carpentry  
HAW CC Program Major(s): CARP**

<b>Demand Indicators</b>		<b>Fall of Year</b>		
		<b>2005</b>	<b>2006</b>	<b>2007</b>
1	New & Replacement Positions (State)	115	115	239
2	New & Replacement Positions (County)	46	46	41
3	Number of Majors	40	47	51
4	SSH Program Majors in Program Classes	348	336	360
5	SSH Non-Majors in Program Classes	0	12	0
6	SSH in All Program Classes	348	348	360
7	FTE Enrollment in Program Classes	23.20	23.20	24.00
8	Number of Sections Taught	2	2	3

**Demand Health**  
Cautionary

<b>Efficiency Indicators</b>		<b>Fall of Year</b>		
		<b>2005</b>	<b>2006</b>	<b>2007</b>
10	Average Class Size	14.50	14.50	15.33
11	Fill Rate	90.63	90.63	95.83
12	FTE BOR Appointed Faculty	2.00	2.00	3.00
13	Majors / FTE BOR Appointed Faculty	20.00	23.50	17.00
14	Majors / Analytic FTE Faculty	25.00	29.38	31.88
14a	Majors / Analytic FTE Faculty @ 12 cr.	20.00	23.50	25.50
15	Program Budget Allocation (*07 @ 12cr.)	\$81,336.00	\$81,536.00	\$102,980.00
16	Cost per SSH (*07 @ 12cr.)	\$233.72	\$234.30	\$286.06
17	Number of Low-Enrolled (<10) Sections	0	0	0

**Efficiency Health**  
Healthy

<b>Effectiveness Indicators</b>		<b>2005</b>	<b>2006</b>	<b>2007</b>
		19	Persistence (Fall to Spring)	77.50
20a	Number of Degrees Earned (Annual)*	11	11	9
20b	Number of Certificates of Achievement Earned (	3	2	8
21	Number Transferring (to UHM, UHH, UHWO)	1	0	2
Perkins - Campus Actual **				
22	1P1 Academic Achievement	87.5	60	92.31
23	1P2 Vocational Achievement	100	66.67	100
24	2P1 Completion	75	66.67	66.67
25	3P1 Placement Employment/Education	91.67	58.33	50
26	3P2 Retention Employment	100	85.71	100
27	4P1 Non Traditional Participation	6.82	11.43	19.05
28	4P2 Non Traditional Completion	5.88	9.09	27.27
Perkins - State Standards **				
22	1P1 Academic Achievement	81.81	81.92	81.87
23	1P2 Vocational Achievement	90.00	90.00	90.42
24	2P1 Completion	36.00	37.33	38.17
25	3P1 Placement Employment/Education	71.00	71.72	71.07
26	3P2 Retention Employment	90.00	92.00	92.00
27	4P1 Non Traditional Participation	14.81	14.60	14.60
28	4P2 Non Traditional Completion	12.86	12.73	12.19
29	Faculty FTE Workload @ 12 cr.	2	2	2

**Effectiveness Health**  
Healthy

<b>Overall Program Health</b>	<b>Healthy</b>
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\*All degrees and certificates are counted based on fiscal year.

\*\* Perkins data are for CTE programs only. From report on 2006-2007 Perkins activity year

## ***Part II. Analysis of the Program***

Overall the program is Healthy.

Demand is Cautionary based on majors compared to new and replacement positions in the county being about 1.24:1.

Efficiency of the program is Healthy. Average Class Size and Fill Rate have increased. Classes consistently fill at more than 90% capacity and the cost per student semester hour is reasonable. Majors to FTE BOR Appointed Faculty is 17.

Effectiveness of the program is Healthy. Persistence fall to spring is at 82.35%, an indication that students are succeeding and staying with the program. Number of degrees earned decreased by 18.18%; however number of certificates earned increased 300%. Some students leave school before graduating because they need to work. The certificate is a valuable option for these students. Others find jobs not reported on the state's employment record; this is especially true of the construction trades since employers often hire workers as independent contractors, which equates to being self-employed. All Perkins indicators except Placement Employment;/Education are above state standards.

### ***Significant Program Actions (new certificates, stop-out; gain/loss of positions, results of prior year's action plan)***

Effective fall 2007, the Carpentry Program modified its first semester curriculum to split its one 12-credit class, Carpentry 20, into two classes. The new classes are Carpentry 20A (3 credits) and Carpentry 21A (9 credits). This was done to articulate classes being offered by the construction academy at local high schools on the Big Island of Hawai'i. Students enrolled in the construction academy classes who earn a "B" or better have an opportunity to earn credits that can be applied to the Carpentry program at Hawaii Community College. Our instructors have worked closely with the Construction Academy to provide an equivalent and seamless integration of incoming students and acknowledge that adjustments and monitoring will be necessary for a successful and sustainable outcome.

### ***Part III. Action plan***

The Carpentry Program will closely monitor the progress of the Construction Academy's students that enter the Hawaii Community College Carpentry Program to insure the 3 credits are justified by what is taught at the high schools.

Currently the Carpenter's Union Local 745 credits students graduating from the Carpentry Program with a total of 1000 work hours and 240 classroom hours. This is applied to the students' records upon been accepted into the Carpenter's Union Local 745. Further attempts to negotiate with the union to get additional credits for the students have being unsuccessful, but will be pursued.

The program will continue to work with Department of Hawaiian Home Lands under a contract that is in effect until 2011. This involves the carpentry students constructing an affordable residential home on Hawaiian Home Lands for a qualified Hawaiian applicant.

The Carpentry Program will continue to manage its resources by promoting recycling of valuable construction materials throughout the academic year. By maximizing the use of the following

materials through conservation and recycling, the program saves money and promotes sustainability standards:

- concrete masonry unit (CMU) hollow tile
- concrete form materials (2 x 6,8,10,12)
- flooring materials (2x 6 & 8, 4 x 6, 8))
- sheathing materials (3/4” x 4 x 8 T & G Flooring)
- framing materials (2 x 4, 6, 8)
- roofing materials (Galvanized Roof Iron)
- nails
- using “green” technology, i.e. water borne finishes (paint, varnish)

The Carpentry Program also depends on the local building industry to provide direction and resources for our curriculum. We have received donations of hundreds of board feet of hard and soft woods to be recycled in our laboratory tasks and projects. They have been an invaluable source of information on tools, machines, materials and procedures which our program must consider to keep up with the current and future industry.

***Part IV. Resource Implications (physical, human, financial)***

The Carpentry Program carefully manages its budget and resources. In order for it to continue fulfilling its mission, the following are required new resources that are needed:

1. Replacement of its aging and irreparable vehicles. This is necessary for the safe transporting of students to the job site and on visitations. During this current academic year, the program received a donation from a locally owned company that donated a 1992 Ford Crew Cab to replace our dilapidated 1987 Crew Cab. The addition of the donated truck has temporarily filled a void within the program’s ability to transport lengthy materials to our job sites until a more reliable vehicle can be purchased. The program’s 1981 Flatbed Truck is still being used daily for transporting bulky and heavy materials to the job site and is top of the list of equipment in need of replacement. It was purchased via the State Surplus, which had acquired it from the U. S. Navy. The general condition of the vehicle, at the time of purchase marginally met the Carpentry Program’s needs. Since the time of purchase, the vehicle has gone through numerous repairs and mechanical upgrades to keep it in working condition. Estimated replacement cost for the Crew Cab Truck is \$45,000 and Flatbed Truck estimated replacement cost is \$60,000.
2. Stationary machines need to be upgraded to industry standards. This will result in estimated expenditures of \$10,000. Machines being replaced include a 6” Jointer and a Unisaw Table saw.
3. Facility upgrades are needed to provide a safe, well-maintained facility conducive to learning. The following table provides details on required repairs, maintenance, and upgrading of facilities.

<b>List Bdnng/Rm/Lab/Shop</b>	<b>Describe Renovation/Repair Needed</b>	<b>Estimated Cost</b>
Building 3386B	- bathroom facilities for both males and females, and faculty - classroom is non-existing - covered exterior work area	\$1,000,000

Building 390 - exterior	<ul style="list-style-type: none"> <li>- needs fresh coat of paint</li> <li>- exterior door to shop needs to be replaced</li> <li>- dust collection system need to be overhauled, upgraded</li> </ul>	\$350,000
Building 390 - classroom	<ul style="list-style-type: none"> <li>- needs fresh coat of paint</li> <li>- air conditioning system not adequate and noisy</li> <li>- exterior door needs to be replaced</li> <li>- needs to be treated for termites, both ground and dry wood termites</li> </ul>	\$35,000
Building 390 - shop	<ul style="list-style-type: none"> <li>- needs fresh coat of paint</li> <li>- electrical needs to be upgraded</li> <li>- doors need to be replaced</li> <li>- ventilation system needs to be improved</li> <li>- treated for termites</li> </ul>	\$500,000
Building 390 - bathroom	<ul style="list-style-type: none"> <li>- needs to be renovated and upgraded to accommodate both males and females</li> <li>- treated for termites</li> </ul>	\$750,000
Building 390 - tool room	<ul style="list-style-type: none"> <li>- door needs to be replaced</li> <li>- needs fresh coat of paint</li> <li>- treated for termites</li> </ul>	\$35,000
Building 390 – office	<ul style="list-style-type: none"> <li>- door needs to be replaced – security</li> <li>- needs painting</li> <li>- treated for termites</li> </ul>	\$35,000