HAWAI‘I COMMUNITY COLLEGE

ANNUAL INSTRUCTIONAL

PROGRAM REVIEW

Carpentry Program

APRIL 2, 2007

Writer(s): Gene Harada
Joel Tanabe

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I. Narrative and Analysis of Data

The Carpentry Program has continuously maintained a steady influx of students from ages 18 to 62 years old from a wide array of ethnicity and background from the community and internationally. The trend has changed from previous years from which older students who were working in industry, decides to return to school and upgrade themselves with the basic skills for a better opportunity to advance within the construction industry. Industry has acknowledged the fact that a student that has graduated from a trade's school has more potential to succeed in the work place. The Carpenter's Union has supported the Carpentry Program, only college within the system, by crediting the student upon graduation and joining the union, with a 1000 work hours, which mounts to, instead of the student starting at 40 percent of a journeyman's wage, they start at 45 percent of a journeyman's wage which equals to $15.28 an hour instead of $13.58 an hour. They also are given 240 classroom credit hours for some of the classes they had taken by attending the Carpentry Program.

Hawai‘i Community College
2006 – 2007 Program Health Indicators

Carpentry (CARP)

The Program Health Indicators Review provides a comprehensive, empirically based review of academic programs. Major sections of the report provide descriptive information about the development and history of a program, goals, faculty and advisory committees, admission and degree requirements, and graphic representation of the program's standing. The major clusters of program health indicators are program demand, program efficiency and program outcomes. Hawai‘i Community College uses five data elements to develop these clusters: number of applicants and majors (program demand), class fit and average class size (program efficiencies) and graduates (program outcomes).

Chancellor : Rockne Freitas
Dean of Instruction: Doug Dykstra
Division Chair: Clyde Kojiro

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PROGRAM DESCRIPTION

The Carpentry program is placed in the Construction Technology Department of the Applied Technical Education Division of the Hawaiʻi Community College. Other programs within this department include: Agriculture, Architectural Engineering & CAD Technologies, and Electrical Installation & Maintenance Technologies.

The Carpentry Program is designed to give students entry level skills in both residential and commercial construction and to prepare them to enter the four-year apprenticeship program within the Carpenters' Union, Local 745.

This program provides an excellent background for those students desiring to enter the four-year apprenticeship program. Credit may be given in the apprenticeship program for work completed at Hawaiʻi Community College.

PROGRAM GOALS

The goals of the Carpentry program are 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 HEALTH INDICATORS

INDICES	MINIMUM LEVEL	ACTUAL LEVEL	SATISFACTORY LEVEL
PROGRAM DEMAND/CENTRALITY: Fall 2006			
Number of Applicants	30	65	45
Number of Majors	40	48	60
Student Semester Hours	240	348	360
Class Credit Hours	24	24	24
Number of Classes Taught	2	2	2
PROGRAM EFFICIENCY: Fall 2006			
Average Class Size	10	14.5	15
Student Semester Hours per FTE Faculty	120	174	180
Equiv. Class Credit Hours per FTE Faculty	12	12	12
Percentage of Small Classes	50%	0	0%
PROGRAM OUTCOMES: Fall 2005 (See Perkins III Core Indicators on Page 5)			
Credits Earned Ratio – General Education		00%	
Credits Earned Ratio – Vocational Education		00%	
Degrees and Certificates Awarded – AY 2001-2002		00%	
Placement into Further Education, Employ, or Military		00%	
Program Retention – Fall to Spring		00%	
Retention in Employment		00%	
Non-Traditional Participation – Females		00%	
Non-Traditional Completion – AY 2001-2002		00%	

2005-2006 PERKINS III CORE INDICATORS

Core Indicators	# in Denominator	# in Numerator	Adjusted Level	Actual Level
Academic Achievement	15	9	81.92%	60.00%
Vocational Skills	15	13	90.00%	86.67%
Degrees & Certificates	15	10	37.33%	66.67%
Placement/Employment	12	7	71.72%	58.33%
Retention/Employment	7	6	92.00%	85.71%
Nontraditional Participation	35	4	14.60%	11.43%
Nontraditional Completion	11	1	12.73%	9.09%

EMSI Table for Hawaii County

UHCC Occupation	State 2005	Hawaii 2005	Hawaii New 2005-2011	State Replacement 2005-2011	Hawaii Replacement 2005-2011
Applied Trades	309	53	7	27	4
Building Maintenance & Repair	8123	808	135	908	98
Carpentry Technology	6876	1128	178	602	99
Facilities Engineering Tech	8123	880	135	908	98
Vessel Repair	8123	880	135	908	98

ANALYSIS OF THE PROGRAM

This program has demonstrated the following with regard to demand, efficiency, and outcome measures:

Program Demand/Centrality

The Carpentry Program continues to demonstrate high demand regardless of the construction industries need for carpenters in both the residential and commercial areas. Even with this high demand, the Carpentry Program continues to exceed the satisfactory level. This is reflected by the higher number of applicants (65) compared to the satisfactory level of (45). Contractors locally are now experiencing a high turn over rate of carpenters because of their inexperience and the time to train them doing the work day.

Program Efficiency

The data for the efficiency measures indicate that all indicators exceeded their minimum levels but one, is at satisfactory level, demonstrating that his program is continuously operating efficiently Class sizes have always being above the minimum level.

Program Outcomes

(Insert)

Plan of Action for 2005 - 2006

The Carpentry Program will continue to work with OCET to offer classes for specific skills and upgrading of skills for those working in industry. Recruitment and Career Fairs will always be a high priority for the Carpentry Program.

Responses to last year's Plan of Action

In responds to last years plan of action, the Carpentry program has attended numerous Career Day functions at various high schools around the island, advising students about the opportunities and benefits that are available within the Carpentry field. Subjects touched on were the importance of learning both the math and English skills and how it relates to the trades. This year we participated in the 2007 Opportunities Expo, Na Leo O Na Opio, (Career Pathways Fair/Summer Opportunities Expo), hosted by Hilo High School, Waiakea High School and Na Leo O Na Opio with the collaboration of the Office of the Prosecuting Attorney, Gear Up Hawaii and Kamehameha Schools Hawaii. Schools from the East side of the island gathered at the Honpa Hongwangi Sangha Hall and were provided with information about various career options. This year for the first time, the Carpentry Program involved the students within the program as ambassadors to promote the program and Hawaii Community College. As a result of this, the students were able to sign up approximated 100 plus students who wanted additional information sent to them about the program and/or college.

Plan of Action for 2007-2008

The Carpentry Program sees the importance of its recruiting and participation in Career Fairs within the high schools around the island. We will continue to make every effort to attend as many Career Fairs as possible without sacrificing our instructional classes to inform as many students of the opportunities that are available to them within the construction field.

The program will fully support the articulation between the DOE and Hawaii Community College Construction academy which will provide high school students the opportunity to obtain duel credits when taking a class that is associated with the Construction Academy in the high school.

Appendix A: History and Admission Requirements

Program History

The Hawaiʻi Vocational School was established in 1941 by the Act of the Territorial Legislature as a separately administered area vocational school. Its prime responsibility was to provide vocational education for Hawaiʻi County. Carpentry was one of the trade programs offered at that time along with Automotive Mechanics, Dressmaking, Machine Shop, and Sheet Metal and Welding. The school was first located on Waianuenue Avenue and was later moved to Reed's Bay.

In response to growing community needs and the dangers of recurring seismic waves at Reed's Bay, construction of a new facility was begun in 1952 and completed in 1956. The present carpentry shop is located on the corner of Manono and Kawili Streets in Hilo. The program was given the additional space it required in 1984 when three other trade programs moved to the mauka campus.

Under the enabling act passed by the 1969 State Legislature, the administration of the school transferred from the Department of Education to the University of Hawaiʻi in July 1969. The name was changed from Hawaiʻi Technical School to Hawaiʻi Community College and it became a part of the University of Hawaiʻi at Hilo. On July 20, 1990, the college was separated from UHH and became a part of the University of Hawaiʻi Community College System. As it did when it was a part of UHH, the college still has the responsibility of providing vocational-technical and general education courses and program that lead to the Certificate of Achievement and the Associate of Science and Associate of Arts degrees. The Carpentry program offers the C.A. and A.A.S. options. The community college is currently embarked on a joint venture with the Department of Education, called Construction Academy, where as high school students will have the opportunity to take a trades class at the high school and use the credit to fulfill the DOE requirement for graduation and also use it a college credit, depending on the grade a student receives.

The Carpentry program is currently in the process of completing its 40th Model Home that is built on a site designated by the Department of Hawaiian Homes Lands. The success of this program is attributed to the cooperative and collaborative efforts of Hawaiʻi State and County agencies, private industry and the College. This program, which began in 1965, provides students with invaluable on-the-job skills and work experiences with a lot of emphasis on safe construction practices for all students.

Program Admission Requirements

Students will be selected on a first-come, first-served basis after meeting the program's minimum entry requirements, which are listed below:

For acceptance minimum placement test scores are:

- COMPASS Placement scores into Math 22 or Math 50 and ENG 21R or higher

Required skills or aptitudes:

- Manual dexterity and aptitude for precise work
- Ability to work in high places and good sense of balance
- Knowledge of blueprint reading

APPENDIX B: Degree Requirements

			CA	AAS
First Semester				
**	Carp 20	Introduction to Carpentry	9	9
**	Math 50	Technical Math or higher	3	3
	Blprt 30F	Blprt Reading and Drafting	3	3
		TOTAL	**18**	**18**
Second Semester				
	Carp 22	Concrete Form Construction	12	12
	Blprt 40	Blprt Reading and Estimates	3	3
**	Eng	Eng 21, 51, or 22 or higher	3	3
		TOTAL	**18**	**18**
Third Semester				
	Carp 41	Rough Framing and Exterior Finish	-	12
	Elective	Social, Natural, & Cultural Environments	-	6
		TOTAL	**-**	**18**
Fourth Semester				
	Carp 42	Finishing	-	12
	Math 55	Technical Math II	-	1
	Elective	Social, Natural, & Cultural Environments	-	3
	Carp 93V	CVE (optional)		
		TOTAL	**-**	**16**
		TOTAL	**36**	**70**

Appendix C: Faculty

Regular Faculty

Name	Tenure Status and date	Degrees Held	Rank
Gene Harada	Tenured, 1998	A.S.	C-5
Joel Tanabe	Instructor	A.S.	C-2

Part-time Faculty

Name	*Tenure Status and date*	*Degrees Held*	*Rank*
none			

Appendix D: Advisory Committee

Larry Bianchi, Vice-President, ABC Interiors
Conrad Hokama, Vie-President, Alumside Products, Inc.
Kehaunani Masaki, Building Supervisor, County of Hawai'i Building Department
Robert Meierdiercks, Field Representative, Carpenter's Union Local 745
Terence Nakamura, Field Representative, Carpenter's Union Local 745
Glenn Ogawa, Vice-President, Stan's Contracting, Inc.

Appendix E: Definitions of Data Elements (All data includes West Hawai‘i)

A. Program Demand/Centrality:

1. Number of Applications: Total number of applications received complete and incomplete.

2. Number of Majors: Major declared/on file during the semester.

3. Student Semester Hours: Total number of semester hours based upon class credits and student enrollment. Sum of all class credits multiplied by the enrollment for each class. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes cancelled, 99V, 199V, 299V, and all CVE classes.

4. Class Credit Hours: Sum of credits of all classes offered within the program/with the program/major code/alpha. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes cancelled, 99V, 199V, 299V, and all CVE classes.

5. Number of Classes Taught: Total number of classes conducted/run within the program/with the program/major code/alpha. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes 99V, 1 99V, 299V, and all CVE classes.

B. Program Efficiency:

1. Average Class Size: Average class size of all classes conducted/run within the program/with the program/major code/alpha. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes 99V, 199V, 299V, and all CVE courses. Total enrollment in each class excludes students with “DR” and/or “W” grades.

2. Student Semester Hours per FTE Faculty: Total student semester hours from A.3. divided by analytical FTE Faculty.

    a. Analytical FTE Faculty: Teaching based upon a full load (15 or 12 credits depending upon the contact hours.) Division Chairpersons are assigned an analytical FTE Faculty equivalent of 0.70 FTE.

    b. Each full-time faculty within a program is considered to be 1 FTE. FTE based upon lecturers are calculated by the number of credits each are assigned to teach.

    c. Assigned time is to be extracted from FTE calculations… similar to calculating the FTE for a Division Chair. For example, if a Full-time faculty received 3 credits assigned time (out of a regular 15-credit load) it would be considered a .8 FTE rather than 1.

3. Equivalent Class Credit Hours per FTE Faculty: Total class credit hours from A.4. divided by total analytical FTE Faculty.

4. Percentage of Small Classes: Percent of classes within the program/with the program/major code/alpha that had less than 10 students. Includes practica and other classes where 5

students = 1 semester (credit) hour; however, these classes are considered to be Low enrolled only if there are less than 5 students or between 6 and 9 students. Excludes 99V, 199V, 299V, and all CVE classes.

C. Program Outcomes:

1. Credits Earned Ratio (Remedial/Developmental): Percentage of program majors enrolled in ESL 9, ESL 13, ENG 20R, ENG 20W, ENG 51, LSK 51, MATH 22, and MATH 50 who passed with a grade of A, B, C, D or CR.

2. Credits Earned Ratio (General Education): Percentage of program majors enrolled in all LBART courses (excluding those in C.1.) who passed with a grade of A, B, C, D or CR. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes 99V, 199V, 299V, and all CVE courses.

3. Credits Earned Ratio (Vocational Education): Percentage of students enrolled in vocational courses who passed with a grade of A, B, C, D or CR. Includes practica and other classes where 5 students = 1 semester (credit) hour. Excludes 99V, 199V, 299V, and all CVE courses.

4. Credits Earned Ratio (Overall): Combination of C.1., C.2., and C.3. above.

5. Graduate Placement Rate: Students who graduated with a certificate/degree in the PAST academic year and found work in that field.

6. Degrees Awarded: The number of certificates and degrees awarded during the PAST academic year.

7. Retention Rate: New students within a program/major continuing or retained in that program/major from the past two or more terms. (Students registered in Fall 2000 who started in Spring 2000 or Fall 1999. Students registered in Fail 2001 who started in Spring 2001 or Fall 2000.)

Part IX. Budget Implications

Does the program have sufficient resources and are they being used efficiently?

What does the program need in order to meet its goals over the next review period?

- The Carpentry Program manages its resources by budgeting and promoting recycling of valuable construction materials throughout the academic year. By maximizing the use of the following materials by conservation and recycling, the program has being able to efficiently extend the life of its use.
  - 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
- In order for the program to continue maintaining and improving its goals over the next review period, the following are required
- replacement of its aging and irreparable vehicles for safely transporting students to the job site and visitations. *The replace of the 1987 Crew Cab Truck, regardless it being newer than the 1981 Flatbed Truck, was previously bought through the State Surplus after it was acquired from the U. S. Navy. The general condition of the vehicle, at the time of purchase was quite evident by the amount of mileage and body damage that it had already acquired while owned by the Navy, but it still had sufficient amount of life in it to meet the Carpentry Programs needs. Since the time of purchase, the vehicle has gone through numerous repairs and mechanical upgrades to keep it in working condition. It has come to a point where it's a safety issue if we try to prolong its' use.*
- upgrading of the stationary machines up to industry standards
- providing a safe well maintained facility
- up grading of its computer system
- providing an environment conducive to learning

CHART 1: FACILITIES ASSIGNED TO PROGRAM

List Bdng/Rm/Lab/Shop	Describe Renovation/Repair Needed	Estimated Cost
Building 3386B	- bathroom facilities for both males and females, and faculty - classroom is non-existing - fiber optics for computer link	$1,000,000.00
Building 390 - exterior	- needs fresh coat of paint - exterior door to shop needs to be replaced - dust collection system need to be overhauled, upgraded	$300.000.00
- classroom	- needs fresh coat of paint - air conditioning system not adequate and noisy - ceiling fan needs to be replaced - exterior door needs to be replaced - needs to be treated for termites, both ground and dry wood termites	$30,000.00
- shop	- needs fresh coat of paint - electrical needs to be upgraded - doors need to be replaced - ventilation system needs to be improved - treated for termites	$200,000.00
- bathroom	- needs to be renovated and upgraded to accommodate both males and females - treated for termites	$750,000.00
- tool room	- door needs to be replaced - needs fresh coat of paint - treated for termites	$25,000.00
- office	- door needs to be replaced – security - needs painting - treated for termites - upgrading of the computer system	$25,000.00

CHART 2: INVENTORY LIST: EQUIPMENT and CONTROLLED PROPERTY

Program Assigned Equipment (E) and Controlled Property (CP) (List in order of chronological depreciation date)	Category: E =item value > than $5K CP =item value $1K - $5K	Expected Depreciation Date	Estimated Replacement Cost
1981 Truck GMC Flatbed	**E - $9,962.00**	**2006**	**$50,000.00**
1987 Ford 4 x 2 Crew Cab Truck	**E - $13,670.00**	**2006**	**$45,000.00**
Tractor Case Backhoe	**E - $3,000.00**	**2007**	**$40,000.00**
Computer Macintosh Apple Computer Power Mac 7200/120	**CP - $2,842.00**	**2007**	**$4,000.00**

CHART 3: BUDGET REQUESTS

Describe Item	Biennium Request – 1st Yr.	Biennium Request – 2nd Yr.	Reallocation of Funds and/or Positions	X Amt. Line Item
1987 Ford 4 x 2 Crew Cad Truck	1st yr			$45,000.00
Computer Macintosh Apple Computer Power Mac 7200/120	1st yr			$5,000.00
1981 Truck GMC Flatbed		2nd yr		$50,000.00
Tractor Case Backhoe		2nd yr		$40,000.00

Re: **REPLACEMENT/NEW EQUIPMENT REQUEST**

TOOL	**AMT**	**COST**	**JUSTIFICATION**
DeWalt 14v cordless drill (Dw928K2)	4	$119.99	5 year old Bosch drills need Replacement batteries. ($80.00 ea.) X 2
DeWalt 12” sliding miter saw. (DW718)	1	$679.00	New technology
DeWalt 12” compound miter saw (DW716)	2	$359.00	Existing Bosch miter saw is worn. We are borrowing a miter saw from Construction Academy.

DeWalt miter saw stand (DW723)	2	$189.00	Required when finish work is done at the Model Home (Used with 12" miter saw)
Stabila laser level (GS03200)	1	$249.99	New technology to set cabinets, shelves, etc.
Porter Cable DA sander (6P332)	6	$72.99	New technology to replace 5-10 year old pad sanders.
7 ¼" worm drive skill saw (Skil Mag)	2	$189.00	The only portable saws we have are builders type saws. Most carpenters use worm drives.
Milwaukee ½" Magnum (302-20)	1	$139.00	This drill will be used to drill lockset holes in doors.
Bosch jig saw (1590EVSK)	2	$159.00	These will replace 5-8 year jig saws that do not have Oscillating features.
Bosch 12V impactor (23612)	3	$219.99	New technology to drive screws. Industry standard.
Senco finish nailer (SNF 40/41)	3	$239.00	Industry standard. To be used in the 4th semester with the Model Home.
Porter Cable stapler (NS150A)	2	$134.99	Industry standard. To be used in the 4th semester with the Model Home.
Bostich pinner (BT200K-2)	2	$89.00	Industry standard. To be used in the 4th semester with the Model Home.
Bosch laminate trimmer (6BPR20EVSK)	2	$119.99	Very versatile router. We only have 1.
Milwaukee router (5615-21)	2	$158.00	Unique handle hold making it safer to use.
Johnson 6' level	4	$64.96	Hand level used to

(9872HH)			install doors. 2 of our existing levels are off.
DeWalt drill/impactor (DC9881A)	2	$289.99	Includes cordless hammer drill and Impactor driver (18V) (Great deal)
Biesmeyer saw fence (BC50)	2	$411.99 w/o shipping	Table saw fences to replace 14 year old table saw fences.