

HAWAI`I COMMUNITY COLLEGE
ANNUAL
PROGRAM REVIEW REPORT

Diesel Mechanics (DISL)

December 3, 2009

(Assessment Period: 2008-2009)

Initiator: Clyde Kojiro
Writer(s): Mitchell Soares

**UHCC December 2009 Coversheet –
Annual Report Program Data**

College: Hawaii Community College

Program: Diesel Mechanics Program

Check All Credentials Offered	AA	AS	ATS	AAS	CA	CC	COM	ASC	APC
				X	X				

Introduction: Brief description of the program and program mission.

The Diesel Mechanics Program consists of 28 different one (1) to three (3) credit modules. Courses are offered over a two year cycle with students being accepted any semester. In addition to the 64 credit A.A.S. degree, the program also has a 36-credit Certificate of Achievement.

The Diesel Mechanics Program supports the mission and imperatives of the College with a mission to prepare students to be valued trades people who have the knowledge and skills necessary to effectively troubleshoot, maintain, and/or repair diesel engines, trucks, tractors, boats, and/or other heavy equipment.

Program Student Learning Outcomes:

1. Function safely in a heavy equipment shop environment.
2. Demonstrate ability to communicate effectively to gather and convey information.
3. Apply theory and principles for proper diagnosis, repair, and maintenance in the heavy-duty truck equipment industry.
4. Practice the minimum essential mental, physical, and behavioral skills necessary to maintain professional proficiency.
5. Work collaboratively with others as well as independently.

Part I.

Quantitative Indicators (Reported on 2009 Summary Report Program Data excel sheet --includes health calls based on system scoring rubric).

**Annual Report of Program Data for Diesel Mechanics
Hawaii Community College Program Major(s): DISL**

Overall Program Health				Cautionary	
Demand Indicators				Academic Year	
		Fall 06	Fall 07	08-09	Demand Health Unhealthy
1	New & Replacement Positions (State)	30	38	35	
2	New & Replacement Positions (County Prorated)	3	4	4	
3	Number of Majors	18	33	25	
4	SSH Program Majors in Program Classes	192	267	480	
5	SSH Non-Majors in Program Classes	0	0	0	
6	SSH in All Program Classes	192	267	480	
7	FTE Enrollment in Program Classes	13	18	16	
8	Total Number of Classes Taught	6	7	15	
Efficiency Indicators				Academic Year	
		Fall 06	Fall 07	08-09	Efficiency Health Healthy
9	Average Class Size	16.0	22.1	20.0	
10	Fill Rate	80%	111%	100%	
11	FTE BOR Appointed Faculty	1.0	1.0	1.0	
12	Majors to FTE BOR Appointed Faculty	18.0	33.0	25.0	
13	Majors to Analytic FTE Faculty	22.5	41.3	28.1	
13a	Analytic FTE Faculty	n/a	n/a	0.9	
13b	Majors to Analytic FTE Faculty @12cr.	18.5	33.0	22.5	
13c	Analytic FTE Faculty @12cr.	1.0	1.0	1.1	
14	Overall Program Budget Allocation @12cr. F07, 0809	\$43,176	\$54,462	\$61,607	
14a	General Funded Budget Allocation	n/a	n/a	\$61,607	
14b	Special/Federal Budget Allocation	n/a	n/a	\$0	
15	Cost per SSH @12cr. F07, 0809	\$224.88	\$203.98	\$128.35	
16	Number of Low-Enrolled (<10) Classes	0	0	0	
Effectiveness Indicators				Academic Year	
		2006	2007	08-09	

17	Successful Completion (Equivalent C or Higher)	n/a	n/a	98%	Effectiveness Health Healthy
18	Withdrawals (Grade = W)	n/a	n/a	0	
19	Persistence (Fall to Spring)	83%	73%	79%	
20	Unduplicated Degrees/Certificates Awarded	n/a	n/a	8	
20a	Number of Degrees Awarded	9	3	7	
20b	Certificates of Achievement Awarded	8	1	5	
20c	Academic Subject Certificates Awarded	n/a	n/a	0	
20d	Other Certificates Awarded	n/a	n/a	0	
21	Transfers to UH 4-yr	0	0	0	
21a	Transfers with degree from program	n/a	n/a	0	
21b	Transfers without degree from program	n/a	n/a	0	

C/P denotes that the measure is provided by the college, if necessary.

Data current as of: 8/19/2009 - 3:30:PM

Distance Education Completely On-line Classes		Academic Year		
		Fall 06	Fall 07	08-09
22	Number of Distance Education Classes Taught	n/a	n/a	0
23	Enrollment Distance Education Classes	n/a	n/a	0
24	Fill Rate	n/a	n/a	0%
25	Successful Completion (Equivalent C or Higher)	n/a	n/a	0
26	Withdrawals (Grade = W)	n/a	n/a	0
27	Persistence (Fall to Spring Not Limited to Distance Education)	n/a	n/a	0%
Perkins IV Core Indicators				
Perkins IV Measures 2007-2008		Goal	Actual	Met
28	1P1 Technical Skills Attainment	90.00	100.00	Met
29	2P1 Completion	44.00	53.85	Met
30	3P1 Student Retention or Transfer	55.00	76.19	Met
31	4P1 Student Placement	50.00	100	Met
32	5P1 Nontraditional Participation	25.00	3.33	Did Not
33	5P2 Nontraditional Completion	25.00	0	Did Not

Part II.

Analysis of the Program (strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of the data).

Overall Program Health: Cautionary

Demand Indicator: Unhealthy

The trend for Technical programs to increase enrollment when the unemployment rate rises is common. The Diesel Program is somewhat dependent on the construction industry. Construction is at an all time low and therefore job placement in this county has been weak.

The Diesel Program will struggle with this rating should the economy remain the same. There are 25 majors but the Program has a limit of 17 students per semester because of safety reasons in the shop area. There are four New and Replacement Positions (County), a ratio of one job per 6.25 majors, an unhealthy ratio. The graduates have indicated a willingness to pursue other avenues of training such as Auto Mechanics, Auto Body, Repair & Painting, or Machine Welding and Industrial Mechanics upon graduation.

Efficiency Indicators: Healthy

The fill rate of 100% and the Majors to FTE BOR Appointed Faculty of 25 are both determined to be healthy.

Effectiveness Indicators: Healthy

The ratio of Unduplicated Certificates/Degrees Awarded (8) to majors (25) is 32%, a healthy indicator. The ratio of Unduplicated Certificates/Degrees Awarded (8) to New and Replacement Jobs (4) is 2.0, a cautionary rating. Eight Unduplicated Certificates/Degrees Awarded is a reasonable number considering there are a maximum of 17 students in the program at a given time who are in different semesters of the curriculum. A Persistence rate of 79% is a healthy call. Reasons students withdraw or do not continue with the program are usually because of personal issues and not as a result of poor instruction or curriculum. In addition, some students may have taken all the Diesel courses but lack the related courses to qualify to graduate.

Note: 1) Career Technical Education (CTE) programs must include in analysis any Perkins IV Core indicator for which the program did not meet the goal.

2) If using alternative “program capacity” method to determine program efficiency, include in analysis.

Perkins IV Core Indicators: The Diesel Mechanics Program met four of the six Perkins IV Core requirements. The two that did not meet dealt with nontraditional participation. It is difficult to recruit females into a heavy equipment/machinery program. Recruiting efforts to the High Schools and through other contacts to attract females into the program will be beefed up. Once recruitment is successful, efforts will be made to retain students.

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

Plan of Action 2008-2009	Status
Award the Hawthorne Caterpillar scholarships again for the 2009-10 academic year	Tabled. Unfortunately Hawthorne Pacific Corp won’t be participating with the scholarship foundation this term because their economic situation. As the economic conditions improve this will be pursued again.
Further develop a relationship between Joe Schaffer, Palomar College, and the HawaiiCC Deisel Program.	Ongoing. HawCC will continue to maintain a good relationship with Palomar College and with Mr. Joe Schaeffer to share curriculum and related components to help modernize the Diesel Mechanics Program.
Get the C-13 engine being contributed by Hawthorne running so students can experience a more modern diesel engine than those currently available in the lab.	Tabled. Hawthorne Pacific Corp is experiencing financial difficulty. As the economic conditions improve this will be pursued again.
Support Guam Community College in their development of a diesel program; this relationship is being developed at the request of Hawthorne Pacific Corp., a strong support of Hawai’i CC’s diesel program.	Ongoing. HawCC will continue to support GuamCC in curriculum information and related information.
Have an outside person assess randomly selected students performing an actual work project	Ongoing. An assessment team was developed to help assess students during the shop lab task.

Plan of Action 2008-2009	Status
Work with Helen Nishimoto to survey employers of recent graduates to determine their assessment of the students' skills and work ethics.	Ongoing. Continue to work with Helen to survey students working in the industry.
Continue to look for ways to replace outdated equipment.	Ongoing. We are currently working with Mr. Joe Schaeffer from Palomar College and Matson Navigation to ship products collected by Joe Schaeffer from San Diego, San Marcus area in California to help modernize this program.
Determine if class caps can be lowered to improve safety and working conditions in the classroom	Completed. Class caps have been lowered for safety reasons.
Form a technical maintenance council: a group of industry people who will make classroom presentations and hold training workshops. The purpose will be to make sure students are exposed to current industry training and trends.	Ongoing. Bendix Brake company is scheduling to visit HawCC sometime in spring semester 2010. The students will have an opportunity to experience industry standard technical training.
Continue to review and update student learning outcomes and receive validation from industry.	Ongoing. The HawCC Diesel Mechanics Program and the Advisory committee have just recently updated the student learning out comes
Develop relationships with manufacturers nationwide	Ongoing. Cummins West is currently supporting the HawCC Diesel Mechanics Program with curriculum literature and computer software and related components to perform diagnosis on electronic diesel engines.
Develop a recruitment flyer featuring non traditional students and the Modular Diagnostic Information System.	Ongoing. Continue to pursue this task.
Continue to work with Hawthorne for donations of current diesel engines	Ongoing. HawCC has recently received a C13 Caterpillar electronically control diesel engine from Hawthorne Pacific Corp. Working together to assess the damage components and putting together a parts list to repair this engine.

Part III. Action Plan

Plan of Action 2009-2010

1. Further develop a relationship between Joe Schaffer, Palomar College, and HawaiiCC Deisel Program. This will include investigating the probability of Mr. Schaffer lecturing three credits for the Diesel program..
3. Get the C-13 engine being contributed by Hawthorne running so students can experience a more modern diesel engine than those currently available in the lab.
4. Support Guam Community College in their development of a diesel program; this relationship is being developed at the request of Hawthorne Pacific Corp., a strong supporter of HawaiiCC's diesel program.
5. Continue assessment efforts including external evaluators to assess randomly selected students performing "live" work project.
6. Form a technical maintenance council: a group of industry people who will make classroom presentations and hold training workshops. The purpose will be to make sure students are exposed to current industry training and trends.
7. Work with Helen Nishimoto to survey employers of recent graduates to determine their assessment of the students' skills and work ethics.
8. Develop relationships with manufacturers nationwide
9. Continue to look for ways to replace outdated equipment including relationship with Hawthorne for donations of current diesel engines.
10. Continue recruiting efforts, especially to recruit females into the program. Develop a recruitment flyer featuring non traditional students and the Modular Diagnostic Information System.

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

Repair and maintenance of 5-ton overhead crane	\$14,000
Air compressor	\$18,000
Big storage tool box	\$15,000
Road Ranger updated transmission 13/18 speed	\$15,000
Diesel electronic engine	\$30,000
Video and digital camera	\$3,500
MIG wire feed welder	\$21,000
Environmental parts washer	\$25,000
Sand blaster for cleaning	\$7,000
Student Lab Assistant	\$6,000
Window coverings for Bldg. 323 Classroom	\$3,600
Upgrade outlets to accommodate welding machines in Bldg. 323 Classroom	\$12,000
Paint and upgrade Bldg. 323	\$5,000
New cabinets for Bldg. 323	\$12,000

Annual Report Program Data and analysis located on college website at:

[AY 2009 Completed Annual Program-Unit Reviews](#)