Attachment 1 –A
Revised July 2007

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

DIESEL MECHANICS TECHNOLOGY

Introduction:
Program Mission Statement and brief description of the program including a listing of program level student learning outcomes.

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 Learning Outcomes:

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

Part I. Quantitative Indicators for Program Review

Annual Report of Program Data for Diesel Mechanics
HAW CC Program Major(s): DISL

Demand Indicators		Fall of Year		
		2005	2006	2007
1	New & Replacement Positions (State)	30	30	38
2	New & Replacement Positions (County)	3	3	4
3	Number of Majors	21	18	33
4	SSH Program Majors in Program Classes	195	192	267
5	SSH Non-Majors in Program Classes	0	0	0
6	SSH in All Program Classes	195	192	267
7	FTE Enrollment in Program Classes	13.00	12.80	17.80
8	Number of Sections Taught	7	6	7

Demand Health
Unhealthy

Efficiency Indicators		Fall of Year		
		2005	2006	2007
10	Average Class Size	16.14	16.00	22.14
11	Fill Rate	80.71	80.00	110.71
12	FTE BOR Appointed Faculty	1.00	1.00	1.00
13	Majors / FTE BOR Appointed Faculty	21.00	18.00	33.00
14	Majors / Analytic FTE Faculty	26.25	22.50	41.25
14a	Majors / Analytic FTE Faculty @ 12 cr.	21.00	18.46	33.00
15	Program Budget Allocation ('07 @ 12cr.)	$43,594.00	$43,176.00	$54,462.00
16	Cost per SSH ('07 @ 12cr.)	$223.56	$224.88	$203.98
17	Number of Low-Enrolled (<10) Sections	0	0	0

Efficiency Health
Healthy

Effectiveness Indicators				
		2005	2006	2007
19	Persistence (Fall to Spring)	80.95	83.33	72.73
20a	Number of Degrees Earned (Annual)*	4	9	3
20b	Number of Certificates of Achievement Earned (Annual)*	6	8	1
21	Number Transferring (to UHM, UHH, UHWO)	0	0	0
	Perkins - Campus Actual **			
22	1P1 Academic Achievement	71.43	90	50
23	1P2 Vocational Achievement	87.5	100	100
24	2P1 Completion	37.5	72.73	33.33
25	3P1 Placement Employment/Education	77.78	66.67	75
26	3P2 Retention Employment	71.43	100	100
27	4P1 Non Traditional Participation	4.17	0	5
28	4P2 Non Traditional Completion	0	0	0
	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.	1	0.98	1

Effectiveness Health
Cautionary

Overall Program Health	Cautionary

Overall Program Health	Cautionary

***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

Strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of data.

- The overall program health is Cautionary. Demand based on new and replacement positions in the county is weak showing only 4 positions available. The number of majors in fall 2007 is 33, which is significantly higher than demand presenting an Unhealthy assessment. Strong industry support suggests a higher demand for qualified diesel mechanics than is indicated by the county statistics.
- All the statistics used to determine efficiency increased favorably for the current period. Although the efficiency of the program is deemed Healthy, with one instructor and a fill rate of 110.71% and a ratio of majors/FTE BOR Appointed Faculty of 33, it is a concern as to whether safety and working conditions are being compromised.
- The persistence from fall to spring is 72.73% which falls at the Cautionary level and this is a decrease of 10.6% from 2006. More alarming is the data that only 3 degrees and 1 certificate were earned. With only one instructor and an open entry structure where students are being accepted any semester, it is extremely important to know the level at which the student is at.

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

As a result of industry indicating the need for workers to have knowledge about electronics and air conditioning, electronics for diesel engines and air conditioning for diesel equipment were integrated into courses within the program.

Plan of Action 2007-2008	Status
1. Award the Hawthorne Caterpillar scholarships again for the 2008-09 academic year.	Two $2,500 awards were given.
2. Further develop a relationship between Joe Schaffer, Palomar College, and the HawaiiCC Deisel Program. This will include investigating whether Mr. Schaffer would like to lecture three credits for HawaiiCC spring or fall 2008.	ongoing Mr. Schaffer will provide assistance to the Diesel Program fall 2008
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.	in progress
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 support of Hawai'i CC's diesel program.	no action
5. Have an outside person assess randomly selected students performing an actual work project.	no action
6. Work with Helen Nishimoto to survey employers of recent graduates to determine their assessment of the students' skills and work ethics.	no action
7. Continue to look for ways to replace outdated equipment.	ongoing
8. Determine if class caps can be lowered to improve safety and working conditions in the classroom	in progress

Part III. Action plan

Plan of Action 2008-2009
1. Award the Hawthorne Caterpillar scholarships again for the 2009-10 academic year.
2. Further develop a relationship between Joe Schaffer, Palomar College, and the HawaiiCC Deisel 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 support of Hawai'i CC's diesel program.
5. Have an outside person assess randomly selected students performing an actual work project.
6. Work with Helen Nishimoto to survey employers of recent graduates to determine their assessment of the students' skills and work ethics.
7. Continue to look for ways to replace outdated equipment.
8. Determine if class caps can be lowered to improve safety and working conditions in the classroom
9. 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.
10. Continue to review and update student learning outcomes and receive validation from industry.
11. Continue to develop assessment strategies and tools to evaluate student achievements.
12. Develop relationships with manufacturers nationwide.
13. Develop a recruitment flyer featuring non traditional students and the Modular Diagnostic Information System.
14. Continue to work with Hawthorne for donations of current diesel engines.

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

Task:	**Amount**
1.hire 1 lecturer to teach 3-6 credits per semester	$15K, P
2. hire 1 student lab assistant	$5K, P
3. purchase updated engine for students to work on	$10K, E
4. purchase updated transmissions: 13-18 speed	$20K, E
5. purchase big storage tool box	$12K, E
6. purchase drill presses	$5K, E
7. purchase big bench grinder	$2.5K, E
8. purchase wire feed welder	$5K, E
9. purchase pressure washer	$5K, E
10. purchase sand blaster	$6K, E
11. purchase copy machine	$1.5K, E
12. purchase fax machine	$500, E
13. install crane	$10K, installation
14.Increase supply budget	$8K, SE
15. Repair and/or replace window blinds	$6