

HAWAI'I COMMUNITY COLLEGE PROGRAM ANNUAL REVIEW REPORT

Diesel Mechanics (DIMC)

November 16th, 2015

**Review Period
July 1, 2014 to June 30, 2015**

**Initiator: Joel Tanabe
Writer(s): Mitchell Soares**

Program/Unit Review at Hawai'i Community College is a shared governance responsibility related to strategic planning and quality assurance. Annual and 3-year Comprehensive Reviews are important planning tools for the College's budget process. This ongoing systematic assessment process supports achievement of Program/Unit Outcomes. Evaluated through a college-wide procedure, all completed Program/Unit Reviews are available to the College and community at large to enhance communication and public accountability. Please see <http://hawaii.hawaii.edu/program-unit-review/>

Program Description

Please provide a brief description of your Program. Include your Program Mission statement.

This program prepares the student for employment as a skilled tradesperson who troubleshoots, maintains, and repairs various types of diesel engines, trucks, tractors, boats, and other heavy equipment.

Part I. Review of Program Data

Go to the Annual Reports for Program Data (ARPD) website linked below and review the data for your program.

<http://www.hawaii.edu/offices/cc/arpd/>

Part II. Analysis of the Program

Based on the ARPD data in Part 1, analyze the Program in terms of Demand, Efficiency, and Effectiveness. Include significant Program actions (e.g., new certificates, stop out, gain/loss of positions) and results of prior year's action plan. Include analysis of any Perkin's Core Indicator(s) for which the Program's goal was not met. Also discuss any trends or other factors (internal/external) affecting the Program and analyze other Program changes or information not included elsewhere.

Based on the Program Quantitative Indicators, the DSL program has an overall program health call of Cautionary. Of the three indicators, only the Demand Indicator was deemed Unhealthy. The Efficiency Indicator was given a Healthy health call. The Effectiveness Indicator was given a Cautionary health call.

After careful review, we have determined that the data used in the rubric to determine the Demand Health Call is flawed. The numerator in the formula, New & Replacement Positions (County Prorated), is flawed. We know for a fact that there were more than four job openings for AY 2014-15. Currently we are in the process of tracking our graduates work placement and current employment. This data should be collected and ready to review next year.

The reason we were given a Cautionary health call for the Effectiveness Indicator is because we had zero Unduplicated Degrees/Certificates Awarded in AY 2014-15. The reason for this is that the DSL program only has one cohort so there are graduates once every two years. True data will be represented every other year, so this data will be analyzed in next year's Annual Review.

There were four Perkins IV Core Indicators not met during 2013-2014. They were 3P1, 4P1, 5P1, and 5P2.

3P1 was not met because students that dropped out of the program. We believe the economy and personal challenges were the factors that caused students to drop out, and not due to the program or college.

We believe 4P1 was met, but many of the student placements were outside of the job code used to determine this data. As mentioned above, we are currently in the process of tracking our graduates work placement and current employment. We will be using this data to confirm our job placement next year.

Meeting 5P1 and 5P2 has always been a challenge. We have been and are currently emphasizing the recruitment of non-traditional students. We currently have non-traditional students, in our program, volunteer to talk with students visiting our Hawaii CC Day booth/display. We will continue to look for opportunities, such as participating in Keaau Middle School's and Kamehameha School's career days, to recruit non-traditional students to our program.

Part III. Action Plan

Describe in detail the Program's overall action plan for the current/next academic year. Discuss how these actions support the College's Mission and can lead to improvement(s) in student learning. Include specific action plans to address any ARPD Health Call scores of "Cautionary" or "Unhealthy," and any Perkin's Core Indicator(s) for which the Program's Goal was not met.

A major goal we are planning to accomplish is filling the APT position. With this position filled, we will have the manpower to assist in the paperwork side of instruction. The APT will assist in all aspects of the assessment process, from communicating with the advisory council to analyzing and filing the data. This will help to access deeper so we can create effective action plans to improve the learning environment that promotes student learning, inspires growth, and embraces our island culture and local community student learning.

Part IV. Resource Implications

Please provide a brief statement about any implications of current operating resources for the Program. Budget asks are included in the 3-year Comprehensive Review, except for the following that may be included here: health and safety needs, emergency needs, and/or necessary needs to become compliant with Federal/State laws/regulations. Describe the needed item(s) in detail, including cost(s) and timeline(s). Explain how the item(s) aligns with one or more of the Strategic Initiatives of the Hawai'i Community College 2015-2021 Strategic Plan. Identify and discuss how the item(s) aligns with the Initiative's Goal, Action Strategy, and Tactic. [HAWCC Strategic Plan](#)

Part V. Comprehensive Review Information

Please provide a short summary regarding the last comprehensive review for this program. Discuss any significant changes to the Program since the last comprehensive review that are not discussed elsewhere.

Since the last Comprehensive Report the program has blocked its courses and stopped out one class. We currently take in one cohort every two years. We are currently looking to fill an APT position to assist both DIMC and MWIM.

Required for ARPD Web Submission: Provide the URL to the specific location of this Unit's last Comprehensive Review on the HawCC Program/Unit Review website (see link on page 1):

http://hawaii.hawaii.edu/program-unit-review/docs/2012-2013_disl_comprehensive_program_review.pdf

Part VI. Program Student Learning Outcomes

For all parts of this section, please provide information based on the PLOs (P-SLOs) that were assessed through PLO-aligned course assessments in AY 2014-15.

A) Evidence of Industry Validation (CTE Programs)

[General Pre-Professional Programs can skip industry validation.]

Provide documentation that the program has submitted evidence and achieved certification or accreditation from an organization granting certification in an industry or profession. If the program/degree/certificate does not have a certifying body, you may submit evidence of the program's advisory committee's/board's recommendations for, approval of, and/or participation in assessment(s).

Hawaii Community College

CTE Program Advisory Council Meeting

February 19, 2015

ATE Conference Room

4:00pm-6:00pm with reception to follow in Cafeteria

Attendance: Mitch Soares, Kelvin Kohatsu and Eugene Lyman

Sam Gray, Lloyd Tsue, and Noel Foronda were not able to attend.

Claudia Wilcox-Boucher – Note taker

AGENDA

1. Assessment:

a. Results of program and course assessment – Mitch handed out the packet with the course schedule, minutes of the 2014 Advisory meeting on February 13, 2014 and the agenda. He explained the recent changes to the program and shared the assessment tool with three different rubrics (Assessment 1). The course curriculum was modified to better instruct the students by reducing the number of course modules. The Diesel Program requirements have been reduced from 28 to 6. The Program requirements are still 63 credits for an AAS and 54 credits for a CA with a 2.0 GPA cumulative. But will lessen to 48 credits for the CA hopefully

by fall 2016. The program capacity is 17 students with a waitlist. However, currently the program has 20 students with 1 full time faculty with one student aide working 20 hours a week.

b. Review Program learning Outcomes (PLO's) Course Learning Outcomes (CLO's): Mitch distributed the handout with the DIMC PLO's and stressed that safety is the primary learning outcome. Communication, diagnosis, repair and maintenance in the heavy-duty truck equipment, professionalism and teamwork are also emphasized in the PLO's. He went over the completion goals and the specifics of the six modules.

2. Review of Courses and Curriculum

a. Program CIP Code: (No changes)

b. Plans for updates, new directions:

- Kelvin discussed the need for Commercial Drivers License classes and the need for certified/qualified instructors. There is a possibility of working with HawCC OCET.
- Discussion regarding the 100 level course development for Math and English specifically for CTE students. Math 50 and English 21/ESL 21 will be deleted from the curriculum. There are pilot courses for Math and English that is currently being offered and evaluated. Hopefully it will be approved in the near future. The courses will be appropriate for CTE students and will offer additional options in course selection.
- Continued new trends with the new hybrids, electric systems, and alternate fuels and booms. HELCO is using biodiesel fuel and has new trucks and equipment which is the setting the standard on the island.
- Construction of the TMT will also be a boost to the industry and may bring new equipment to the island.

c. Industry Feedback Regarding Curriculum:

Kelvin Kohatsu: Supports the recent changes and pleased to see that program enrollment is strong. He is willing to assist with field trips and also presentations to the classes.

Eugene Lyman: Program has a lot of hands on experience with the jobs/projects at the shop which is important part of the curriculum.

Other industry partners in the community support the DISL program and are willing to donate vehicles and equipment that the program can utilize.

3. Industry Report

a. Trends what's new in your industry? How will this affect our program? (new skills, procedures, technology changes, etc.) – Short & long term: Advancements in technology are changing engines and brake systems. Applied learning opportunities are important to the program.

b. Employment forecast – Jobs available short term and long term:

- Graduates have been able to get jobs in the industry. Many are working on the West side of the Island as there has been an increase in construction and development.

- CDL drivers are in demand. Many employers are not providing the certification but want the employees to have the CDL and experience before hiring.
- Forklift repair and maintenance in demand.
- There was a discussion about the ships that come into Hawaii that have fully equipped shops on board with journeyman technicians and laborers.
- There is a shortage of mechanics and workers within the industry. Journeymen technicians are retiring and many companies are not replacing them with on-island workers but bringing in workers from Oahu and the mainland.
- County Fire Department and Solid Waste technician positions are available. The council encouraged the creation of a supportive transition period between workers or more on site training and mentoring.
- Hawaiian Tel wants to explore creating an internship program with the DSL program.
- Employment opportunities are increasing as the construction economy improves. Construction is on the upswing and repair and maintenance of heavy-duty diesel equipment is in demand.

Thank you for supporting the Hawaii Community College Diesel Mechanics (DSL) program.

B) Expected Level of Achievement

For each Course assessed in AY 2014-15: Discuss the rubric(s) standards and the benchmark goal(s) for student success (e.g., “85% of students will achieve Excellent or Good ratings in the assessed activity” or “90% of students will score Meets or Exceeds Standards on the assessment rubric”).

The expectation for student achievement for this assessment is a 75% developing proficiency rate.

C) Courses Assessed

List all Program Courses assessed during AY 2014-15. Also list Program Courses for which a follow-up “Closing the Loop” assessment was implemented in AY 2014-15.

Assessed Course Alpha, No., & Title	Semester assessed	PLO-aligned CLOs that were assessed
DIMC 20	Fall 2014	CLO1, CLO2, CLO3, CLO4
DIMC 30	Spring 2015	CLO1, CLO2, CLO3, CLO4, CLO5
“Closing the Loop” Assessments Alpha, No., & Title	Semester assessed	PLO-aligned CLOs that were assessed
DIMC 20	Fall 2014	CLO1, CLO2, CLO3, CLO4
DIMC 30	Spring 2015	CLO1, CLO2, CLO3, CLO4, CLO5

D) Assessment Strategy/Instrument

For each Course assessed in AY 2014-15, provide a brief description of the assessment strategy, including the type of student work or activity assessed how and when the assessment was conducted, how and why assessed artefacts were selected, and how the artefacts were analyzed.

DIMC 20	DIMC 20 assessment (Fall 2014) utilized a performance rubric to establish proficiency ratings. The performance results assessed Course Learning Outcome number 1, 2, 3, and 4. Twenty students were given a diesel engine to overhaul. 75% Developing Proficient was the goal for the students.
DIMC 30	DIMC 30 assessment (Spring 2015) utilized a performance rubric to establish proficiency ratings. The performance results assessed Course Learning Outcome number 1, 2, 3, 4, and 5. Twenty students were given a diesel engine starter to diagnose and repair. 75% Developing Proficient was the goal for the students.

E) Results of Program Assessment

For each Course assessed in AY 2014-15, provide a summative description of the assessment results. Discuss how these results collectively demonstrate achievement of the Program's Learning Outcomes and support the College's Mission.

DIMC 20	<p><u>Evaluation:</u></p> <p>The students were assessed at 95% proficient. Only one student was rated at developing proficiency on two of the competencies. If two or more students were rated at developing proficiency or lower on the same competency, we would need to perform a deeper evaluation.</p> <p><u>Conclusion:</u></p> <p>Upon completing the assessment of DIMC 20, the students show that they have a great understanding of basic diesel engine components/operation and have the ability to work safely.</p> <p><u>Strengths</u></p> <p>Students understand basic diesel engine components/operation and have the ability to work safely.</p> <p><u>Weaknesses</u></p> <p>No weaknesses were found during the assessment of DIMC 20.</p> <p><u>Evidence of Industry Validation</u></p> <p>The assessment plan was validated by the Diesel Mechanics Program's Advisory Council. Since the heavy equipment and truck industry is constantly evolving, we rely heavily on our Advisory Council to keep us up to date on what skill level an entry level mechanic/technician needs to be at.</p> <p><u>Action Plan</u></p>
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	<p>No Action Plan is necessary at this time for DIMC 20 due the high level of proficiency the students were assessed.</p> <p><u>Budget Request</u></p> <p>No budget request is needed at this time due to no changes/no action plan is necessary at this time.</p> <p><u>Comments</u></p> <p>Since the students were assessed at such a high level, no Action Plan is needed at this time. Although no changes are being recommended/implemented at this time, the course is constantly assessed for relevancy by our Advisory Council and updated as needed.</p>
DIMC 30	<p><u>Evaluation:</u></p> <p>The students were assessed at 95% proficient. Only one student was rated at developing proficiency on two of the competencies. If two or more students were rated at developing proficiency or lower on the same competency, we would need to perform a deeper evaluation.</p> <p><u>Conclusion:</u></p> <p>Upon completing the assessment of DIMC 30, the students show that they have a great understanding of basic diesel electrical systems and have the ability to work safely.</p> <p><u>Strengths</u></p> <p>Students understand basic diesel engine electrical system and components/operation and have the ability to work safely.</p> <p><u>Weaknesses</u></p> <p>No weaknesses were found during the assessment of DIMC 30.</p> <p><u>Evidence of Industry Validation</u></p> <p>The assessment plan was validated by the Diesel Mechanics Program's Advisory Council. Since the heavy equipment and truck industry is constantly evolving, we rely heavily on our Advisory Council to keep us up to date on what skill level an entry level mechanic/technician needs to be at.</p> <p><u>Action Plan</u></p> <p>No Action Plan is necessary at this time for DIMC 30 due the high level of proficiency the students were assessed.</p> <p><u>Budget Request</u></p> <p>No budget request is needed at this time due to no changes/no action plan is necessary at this time.</p> <p><u>Comments</u></p> <p>Since the students were assessed at such a high level, no Action Plan is needed at this time. Although no changes are being recommended/implemented at this time, the course is constantly assessed for relevancy by our Advisory Council and updated as needed.</p>

F) Other Comments

Include any additional information that will help clarify the assessment results. Include comparisons to any applicable College or Program standards, or to any national standards from industry, professional

organizations, or accrediting associations. Include, if relevant, a summary of student survey results, CCSSE, e-CAFE, graduate-leaver surveys, special studies, or other assessment instruments used.

G) Next Steps

Based on the Program's overall AY 2014-15 assessment results, describe the Program's intended next steps to enhance instruction in order to improve student learning. Instructional changes may include, for example, revision to curriculum, teaching methods, learning outcome statements, student support, and other options. Please note here if proposed changes will involve Program and/or Course modifications requiring approval.

For AY 2015-16 we are planning to assess all CLOs for DIMC 50.

Part VII. Cost Per SSH

Please provide the following values used to determine the total fund amount and the cost per SSH for your program:

General Funds	= \$82,209
Federal Funds	= \$0
Other Funds	= \$0
Tuition and Fees	= \$42,481

Part VIII. External Data

If your program utilizes external licensures, enter:

Number sitting for an exam _____
Number passed _____

[If your program does not utilize external licensures, skip Part IX.]