

# **HAWAII COMMUNITY COLLEGE PROGRAM REVIEW REPORT**

## **Diesel Mechanics**

**March 2, 2015**

**July 1, 2013 to June 30, 2014**

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*Program/Unit Review at Hawaii Community College is a shared governance responsibility related to strategic planning and quality assurance. It is an important planning tool for the college budget process. Achievement of Program/Unit Outcomes is embedded in this ongoing systematic assessment. Reviewed by a college-wide process, the Program/Unit Reviews are available to the college and community at large to enhance communication and public accountability.*

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## Program Description

*(Official Description from Catalog - then provide more in depth explanation of what this program does, who it serves and generally describe its accomplishments)*

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.

**3yr Review Report Summary** – *If this Program is scheduled for Comprehensive Review, this section must be more robust and detailed explaining changes made to the program in the past 3 years; funding received since last 3 years and results from funding, etc.*

1. We are currently in a process of implementing a new diesel mechanics course modification. In fall of 2014 semester will start the new course curriculum, currently we have 28 modules and the change will have 6 different courses which will help streamline and modernize the DIMC curriculum.

## CERC Comments and Feedback --

*CERC Comments as listed in most recent Comprehensive Review.*

*CERC provided recommendations intended as suggestions for improvement. Provide a brief response to the suggestions made. i.e., Were the suggestion(s) valid? What change(s) were made as a result of the suggestion(s)?, etc.*

- *If no changes were made at all, write "None."*
- *If no changes were made during this review period but you plan to in future periods, write "None in 2013-2014 however changes will be made in (AYs) and will be reported in that review."*
- *If no changes were made during this review period but changes were made in previous review periods, write "None in 2013-2014; however changes were made in (AYs)."*

## Part I: Quantitative/Qualitative Indicators

### A. Annual Report of Program Data (ARPD) Data Grid

Look up ARPD data at:

<http://www.hawaii.edu/offices/cc/arpd/instructional.php?year=2014&action=quantitativeindicators&college=HAW>

Print for convenience since you will need to use information to discuss your Program's indicators.

### B. ARPD Data Analysis

*Based on the data from the ARPD, analyze the program's strengths and weaknesses in terms of demand, efficiency, and effectiveness.*

*If this Program is scheduled for Comprehensive Review, analyze program over 3 years.*

<b>Demand Health UNHEALTHY</b>	<b>Efficiency Health HEALTHY</b>	<b>Effectiveness Health CAUTIONARY</b>
<p>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 which is starting to recover from the previous recession. Construction is slowly increasing in the mainland and therefore job placement in this county is still slow, while increased student count has subverted this ratio. Of program major (37.5) to new and replacement positions (4 County Prorated).</p> <p>The Diesel Program will struggle with this rating should the economy remain the same. There were 37.5 majors listed in the data and four New and Replacement Positions (County Prorated), a ratio of 9.3 majors per job, an unhealthy ratio. Some of the graduates have indicated a willingness to pursue other avenues of training such as Auto Mechanics, Auto Body, Repair &amp; Painting, or Machine Welding and Industrial Mechanics upon graduation. This program has helped some of the graduates locate jobs locally with some of the private and government industry. We have been supporting the industry with entry level technicians for the past 25 years.</p>	<p>The fill rate of 100% and the Majors to FTE BOR Appointed Faculty of 37.5 indicate the program maintains a healthy efficiency rating. The program has been consistent in filling all of the 17 seats that are available during the 2012/2013 year, averaging 17.8 with some students dropping out due to rigor of the program not meeting their expectations.</p>	<p>Successful Completion decreased by three percent from the previous year and at 94% validates that the program is successful in retaining students through the two year program. We have had some students Withdrawal from the program for personal reasons.</p>

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<b>Overall Health</b>
<b>CAUTIONARY</b>

**Distance Education: Completely Online Classes** -- List and provide an analysis of courses taught completely online. (i.e., compare success to face-to-face; action strategies implemented to increase success and completion rates, e.g., working with ITSO on strategies)

N/A

**Perkins IV Core Indicators** -- Identify core indicators (1P1, 2P1, 3P1, 4P1, 5P1, 5P2) that were **not** met and specify action strategies.

The Hawaii Community College safety coordinator recommended some of the shop areas be reconditioning due to safety issue. Removed and disposed of old out dated tools, training materials, damage and unsafe tools and related components that could affect student safety. Renovate the shop area to increase the safety of the students. Removed all tools and related components stripped walls (old paint) and repainted tool room. Reorganized tools and purchased some new tools using the Caterpillar scholarship funding. Nontraditional students has declined, I will emphasize on recruiting nontraditional students at career fairs or in situations when I am promoting the college or program.

1P1 The Hawaii Community College safety coordinator recommended some of the shop areas be reconfigured due to safety issue. Removed and disposed of old out dated tools, training materials, damage and unsafe tools and related components that could affect student safety. Renovate the shop area to increase the safety of the students. Removed all tools and related components stripped walls (old paint) and repainted tool room. Reorganized tools and purchased some new tools using the Caterpillar scholarship funding. Nontraditional students has declined, I will emphasize on recruiting nontraditional students at career fairs or in situations when I am promoting the college or program. When all modification has taken place. The non-traditional student participation and completion will be continuously.

3P1 Same as above

4P1 Same as above

5P1 Same as above

5P2 Same as above

**Performance Funding (Graduation, Native Hawaiian, STEM, Transfer, Degree)** -- Describe how your program contributed to performance funding in these areas? If not, why and how do you plan to contribute in the future?

We actively utilize our office of student services and counselors to improve success rates in this area. We also keep track of native Hawaiian students with the intent of improving success rates.

**C. Trends & Other Factors** -- Describe trends including comparisons to any applicable standards, such as college, program, or national standards from accrediting associations, etc. Include, if relevant, a summary of Satisfaction Survey Results, special studies and/or instruments used, e.g., CCSSE, etc. Describe any external factors affecting this program or additional program changes not included elsewhere.

The department of transportation and national trend has been shifted toward certification. The program encourages students to attempt the exam(s) but it is not a requirement of the program. Students will have to pay for exam registration as well for each exam. There are 8 basic areas of examination. Many employers offer incentive bonuses for passing exams. In that sense, it is not lucrative to have passed exams before employment. The program provides practice exams before graduation so that students will be familiar with testing format.

## Part II: Analysis of the Program

### A. Alignment with Institutional Mission & Learning Outcomes (ILOs)

#### 1) College Mission Alignment

*Hawai'i Community College (HawCC) promotes student learning by embracing our unique Hawai'i Island culture and inspiring growth in the spirit of "E`Imi Pono." Aligned with the UH Community Colleges system's mission, we are committed to serving all segments of our Hawai'i Island community.*

**Copy/Paste from your 2012-2013 Program Review, your description of how this Program supports the College's Mission. Review and revise as you feel necessary. The description you finalize in the field below will be input into PATH for future reports.**

*Example: The SUBS program's faculty and staff fosters excellence in education, workforce development, academic advising and co-curricular activities that focus on engaging, challenging and transforming students to strive for academic excellence, personal growth, contributing members of the Hawai'i Island Community.*

By providing a learning environment that promotes student learning, inspires growth, and embraces our island culture and local community.

#### 2) ILO Alignment

a) **ILO1:** *Our graduates will be able to communicate effectively in a variety of situations.*

**Copy/Paste from your 2012-2013 Program Review, your description of how this Program supports this ILO. Review and revise as you feel necessary. The description you finalize in the field below will be input into PATH for future reports. If Program doesn't support this ILO, write "No alignment to ILO1"**

*Example: The SUBS program's curriculum prepares our graduates to communicate effectively by requiring the students to participate in: 1) small and large group discussions, both online and face-to-face; 2) individual and group presentations; 3) role play of interviewing and counseling skills; 3) fieldwork at practicum sites; 4) service learning activities on campus and in the greater community.*

Our graduates have been taught to effectively communicate technical information and diagnostic skills under a variety of situations.

b) **ILO2:** *Our graduates will be able to gather, evaluate and analyze ideas and information to use in overcoming challenges, solving problems and making decisions.*

**Copy/Paste from your 2012-2013 Program Review, your description of how this Program supports this ILO. Review and revise as you feel necessary. The description you finalize in the field below will be input into PATH for future reports. If Program doesn't support this ILO, write "No alignment to ILO2"**

Our graduates have been taught to gather, evaluate, troubleshoot, and repair problem they may face, in a variety of technical challenging situations. Making correct decision on repair procedures.

c) **ILO3:** *Our graduates will develop the knowledge, skills and values to make contributions to our community in a manner that respects diversity and Hawaiian culture.*

**Copy/Paste from your 2012-2013 Program Review, your description of how this Program supports this ILO. Review and revise as you feel necessary. The description you finalize in the field below will be input into PATH for future reports. If Program doesn't support this ILO, write "No alignment to ILO3"**

Our graduates possess the required knowledge and technical skills that are required of them to be a productive technician within our community that respects diversity and Hawaiian culture.

**B. Program Mission – Write Official Program Mission**

The Diesel Mechanics Program's mission is 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, and upon graduation, meet the industry's entry level requirements of employment.

**C. Strengths and Weaknesses**

**1) Strengths (Top 3 defined)**

State Strength	Using supporting evidence, describe why this is a strength
<i>Example: Program Curriculum</i>	<i>Example: 1) Approved by the State Department of Health as meeting the addictions requirements for Certified Substance Abuse Counseling, and Certified Prevention Specialist educational requirements. 2) STEM Courses - SUBS 132, 268, 270 3) Contains sufficient SUBS core requirement courses to develop an AA Degree in SUBS 4) Indigenous course - SUBS 141 Ho`oponopono</i>
S1. DIMC program class size has continued to be at a full capacity rate.	The diesel mechanics field has grown in the industry and students are showing more interest toward this trade.
S2. The number of native Hawaiians enrolled in this program is higher than the past two years.	Results from instructional annual report of program data line 3a.
S3. The student completion rate.	Results from instructional annual report of program data line 17 shows 94%.

**2) Weaknesses (Top 3 defined)**

State Weakness	Using supporting evidence, describe why this is a Weakness	Proposed solution
<i>Example: Lacks 2-year Degree Program</i>	<i>Example: Does not meet HawCC AMP Priorities (pp 5-10): Increasing Graduates in Science, Technology, Engineering and Math (STEM).</i>	<i>Example: Proposal being made for New AMP Action Strategies that would allow and support the addition of a 2-yr Degree Program for SUBS.</i>

W1. Updating current diesel engines to electronically controlled diesel engine for the DIMC 20 courses.	Advisory council members recommend that electronically controlled diesel engine be part of the curriculum, more of the engines in the industry are electronically controlled engines.	
W2. Lacks sufficient lab work area.	Without sufficient lab work area, students are limited when performing practical projects and complete rubric assignments. Safety may also be compromised by such limitations.	
W3. Lacks environmentally safe, parts washing system.	Parts cleaning is one of the first steps required in reassembling precision components and affects the success of the repair. A good system also reduces hazmat concerns and safety issues for the students.	

### Part III: Course/Program Assessment

#### A. Course(s) Assessed -- List the course(s) (Alpha/#) assessed during this reporting period.

*Example:*

*Courses: SUBS 140, 245, 268*

*PLO#1: Satisfy the addiction studies educational requirements for Hawaii State Department of Health Alcohol and Drug*

*Division 's (ADAD) Certification:*

*Embedded in PLO#1 are PLO 's 2, 3, 4, & 5*

Fall 2012:

DiMc 20 Intro to Diesel Engines

DiMc 21 Engine Operating Principles

DiMc 22 Cylinder Blocks & Heads

DiMc 23 Crankshaft & Bearings

DiMc 24 Camshaft, Gear Train, & Timing

DiMc 25 Piston & Connecting Rod Assemblies

Spring 2013:

DiMc 30 Intro to Electrical Systems

DiMc 31 Starting Systems & Circuits

DiMc 32 Charging Systems & Circuits

DiMc 33 Intro to Fuel Systems

DiMc 34 Caterpillar Fuel Systems

DiMc 35 Detroit Fuel Systems

DiMc 36 Cummins Fuel Systems

DiMc 37 Stanadyne Fuel Systems

DiMc 38 Bosch-CAV

#### B. Expected Level of Achievement -- Describe the different levels of achievement for each

*characteristic of the learning outcome(s) that were assessed. That represented "excellent," "good," "fair," or "poor" performance using a defined rubric and what percentages were set as goals for student success; i.e. 85% of students will achieve good or excellent in the assessed activity."*

The evaluation was assessed using the following information; attendance, punctuality, preparedness, response to supervision, attitude, behavior and cultural sensitivity, safety, attention to task, quality of work, communication, and teamwork. The scale used for the assessment was skilled (4), moderate (3), limited skills (2), and unskilled (1).

#### C. Assessment Strateg(y/ies) & Instrument(s) -- Describe what, why, where, when, and from whom assessment artifacts were collected.

*Example:*

*SAMPLING: College records for seven (all) 2009 program graduates*

*Strategy/Instrument 2: The students were evaluated using an employability/Safety/Communication skills rubric form, which was performed by the program instructor and discussed with the students and advisory council members. The evaluation was assessed using the following information; attendance, punctuality, preparedness, response to supervision, attitude, behavior and cultural sensitivity, safety, attention to task, quality of work, communication, and teamwork. The scale used for the assessment was skilled (4), moderate (3), limited skills (2), and unskilled (1). The instructor evaluated the students using the rubric form and random observations of student behavior were the artifacts. Evaluations that took place during the semester were tallied during weeks 8 and 16 of each semester.*

*Strategy/Instrument 3:*

**D. Results of Course Assessment** - Provide a summary of assessment results.

*Example:*

*RESULTS: 86% (6/7) program graduates met or exceeded expectations: completed SUBS 140,245, 268 with a "C" grade or better. 1/7 students received an incomplete grade.*

At the end of the semester, the student scores were entered into a spreadsheet (one each for the Fall and Spring semesters). For each semester, the spreadsheet calculated the student totals, averages and produced graphs that provide a comparison between the evaluation criteria and the semesters.

It was expected that, as a group, students would achieve an average at least 80% in all the evaluation criteria. This is the evaluation percentage for the assessment performed in fall 2012 - 91.4% score.

This is the evaluation percentage for the assessment performed in spring 2013 - 84.2% score. The two scores represent that overall assessments percentage were above average.

For this year, the faculty decided to compare the differences in scores within and between the semesters to see if they had a bearing on student performance in projects. The program is undergoing major modifications including a redefinition of the program's learning outcomes and a rewrite of all courses and course learning outcomes. For this reason, it was determined that the only consistent data that could be carried into the next assessment period as an evaluation of student employability, safety, and communication skills.

<b>Changes Implemented as a result of Assessment</b>	<b>Evaluation of the changes that were implemented</b>
<i>Change 1:</i>	<i>Evaluation of Change 1:</i>
<i>Change 2:</i>	<i>Evaluation of Change 2:</i>

**E. Next Steps --** *Based on your experience with Assessment so far, what do you plan to do in the future? Include any changes that are planned for the Program as a result of course assessments. For example, changes to rubrics, changes to level of expectation, any Program and/or curriculum modifications, etc.*

The Diesel Mechanics instructor and other faculty discussed the scores and noted a number of issues. In the fall semester, the scores within each criterion decreased between week 8 and week 16 with the exception of Behavior and Cultural Sensitivity, Safety, Quality of Work and Teamwork. For all criteria, the differences were minimal within the semesters. However, the scores between the Fall and Spring showed some significant differences. Spring percentages were on average 7.2% lower than the Fall. Criteria Attendance, Punctuality, and Quality of Work showed the greatest decrease.

One thought that emerged from the discussion was that the skill performance data could be compared against student performance in a project. Over time, the instructional methods could be modified to address the skill criteria that are in need of attention. Improvements in the scores could then be compared against improvement in project performance.

The evaluation team agreed that the skill performance rubric is returning meaningful information and needs no modification at this time.

**F. Evidence of Industry Validation for CTE Programs --** *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, the recommendations for, approval of, and/or participation in, assessment by the program's advisory council can be submitted. Describe the documentation; i.e. 9/27/2013 Minutes of ACC Advisory Council; Completed Rubrics by Advisory Council Members.*

The diesel mechanics program has an advisory member council committee team comprised of the program faculty; members of the community employed in the heavy duty equipment and trucking industry and, when possible, graduates of the program. The advisory team meets annually.

## Part IV Action Plan

### A. 20% Course Review

a) **Courses Reviewed** -- List the Course Alpha/Number and Course Title of courses that were reviewed in AY 2013-2014.

Course Alpha Number	Course Title
DIMC 20	INTRODUCTION TO DIESEL ENGINES
DIMC 30	INTRODUCTION TO ELECTRICAL SYSTEMS
DIMC 33	INTRODUCTION TO FUEL SYSTEMS
DIMC 40	INTRODUCTION TO POWER TRAINS
DIMC 50	HEAVY-DUTY BRAKES, STEERING, & SUSPENSION
DIMC 55	HYDRAULIC AND HYDROSTATIC SYSTEMS

### b) 20% Course Review Schedule

Input the Program's 20% Course Review Schedule for the next 5 years. If a schedule cannot be located, refer to HAW 5.250 Course Review Policy (<http://hawaii.hawaii.edu/ovcadmin/admin-manual/haw5-250.pdf>) to create a new schedule.

Course Alpha Number	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
DIMC 20 - INTRODUCTION TO DIESEL ENGINES	FALL				
DIMC 30 - INTRODUCTION TO ELECTRICAL SYSTEMS	SPRING				
DIMC 33 - INTRODUCTION TO FUEL SYSTEMS		X			
DIMC 40 - INTRODUCTION TO POWER TRAINS			X		
DIMC 50 - HEAVY-DUTY BRAKES, STEERING, & SUSPENSION				X	
DIMC 55 - HYDRAULIC AND HYDROSTATIC SYSTEMS					X

### B. Previous Goals (Program Actions) & Planning

All previous goals from last year's report are used to update the program actions in the Academic Master Plan (AMP) Appendix.

- List and discuss all program actions listed for your program in the AMP Appendix, not including crossed out items. (<http://hawaii.hawaii.edu/docs/academic-master-plan-appendix-priority-actions.pdf>)
- Review and specify which program actions were addressed or completed during Review Period AY 2013-2014.
- Give a progress report for each program action that is not yet address/completed and describe the degree to which the goal was achieved over the review period.
- Specify program actions that are no longer being pursued by the program and should be deleted from the AMP.

AMP Program Actions	Progress Evaluation & Evidence of Achievement
<p><i>Example:</i> 26.1 2009-2010: Recruit and Hire New SUBS -- FTE BOR Appointed Faculty</p>	<p><i>Example:</i> The CERC and HawCC administration approved new faculty position for program, which was submitted to UH system. However, this writer was informed that the position request got "lost" in the UH system, and therefore never forwarded to the State legislature for approval.</p>
<p>10.1 We will continue to promote Caterpillar/Hawthorne student scholarship awards at the high schools and new and returning students to the diesel program.</p>	<p>We will continue to have a strong relationship with these companies.</p>
<p>10.2 Develop a recruitment flier to promote the diesel mechanics program.</p>	<p>Nearing completion</p>
<p>10.3 Donation of diesel engines and other training and related materials.</p>	<p>We will continue to have a strong working relationship with this local Caterpillar company to support the program. The program has received two engines and other training materials that is currently being used in the curriculum.</p>
<p>10.4 Industry training</p>	<p>We have been having industry training from some of the local companies for the students. Here are some of the companies that contribute to these events. Caterpillar-Hawthorne Pacific Corp, Cummins Pacific, Cummins West, Power Generation, and Bendix Brakes.</p>
<p>10.5 Relationship with manufacturers</p>	<p>Matson Navigation company and Caterpillar-Hawthorne Machinery company has helped ship training materials from the mainland to Hilo. The training materials are currently being used in the curriculum.</p>
<p>10.6 &amp; 10.7 Updated student learning outcomes and develop assessment for the course.</p>	<p>We have modified all of the diesel mechanic courses from 28 different modules to 6 course modules. Student learning outcomes, course objectives, course topics, and assessments has been modified to meet the new course modifications.</p>

### C. New Goals (Action Strategies) and Alignment – Describe New Goals, if any

#### Define Goal (Action Strategy) 1

<p><i>Example: Establish AA Degree in SUBS</i></p>
<p>Environmental parts washer. These are some of the training aide systems used for teaching and demonstration. Bendix brake board, differential assembly, and International electronically control diesel engine.</p>

#### Alignment of Goal 1 to ILO(s)

<p><b>Explain how Goal 1 aligns with ILO(s) and provide supporting rationale</b></p>
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Example: Goal 1 aligns with ILO2 (Critical Thinking) by ... Goal 1 aligns with ILO3 (Community contribution) by ...
ILO2
ILO3

### Alignment of Goal 1 to Strategic Plan (SP)

[http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

**Explain how Goal 1 aligns with an Action Strategy in the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale. If Goal 1 does not align with a listed strategy, explain how it aligns to a SP Performance measure. Then, propose a new action strategy in the next field.**

*Examples:*

Goal 1 aligns with SP Action Strategy A1.1.c Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved) by ...

Goal 1 does not align to a listed strategy, but aligns with SP Performance Measure A1.1 (Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved) by ...

B2.c. Seek funding for specialized program and student needs identified by survey

C1.a. Establish a grants writing and management office to increase UH extramural fund support

**Proposed New SP Action Strategy/Strategies (if applicable) – If Goal 1 does not align with a listed HawCC Action Strategy, indicate above how it aligns with a Performance Measure, and then use the field below to propose a new Action Strategy to be added to the HawCC Strategic Plan. New action strategies should be written in generalized terms so that other Programs and Units could also align their goals to them in the future.**

1. Environmental parts washer will be an effective cost efficient addition to the program. This will eliminate toxic chemicals that students will be exposed to, and environmentally friendly.

### Alignment of Goal 1 to Academic Master Plan (AMP)

Academic Master Plan: [http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

AMP Appendix: <http://hawaii.hawaii.edu/docs/academic-master-plan-appendix-priority-actions.pdf>

**Indicate which Academic Master Plan (AMP) Action Priorities Goal 1 aligns with and provide supporting reasoning.**

	STEM	Graduation Remediation Workforce	Student Transfer	Underserved Populations	Green Curricula	Program Development
<i>Example: Establishing an AA Degree in SUBS will increase the number of STEM Degree programs at HawCC and meet the Workforce push for more STEM graduates.</i>	<b>X</b>	<b>X</b>				<b>X</b>
Environmental parts washer. These are some of the training aide systems used for teaching and demonstration. Bendix brake board, differential assembly, and International electronically control diesel engine.		<b>X</b>			<b>X</b>	<b>X</b>

**UH System Collaboration (if applicable)**

- Include collaboration efforts w/other campuses.
- Include alignment with the UHCC Initiatives <http://uhcc.hawaii.edu/OVPCC/> (listed on the left of John Morton's picture).

Example: There is dialogue among MauiCC, KauaiCC, and HawaiiCC to establish a common AA Degree in SUBS.

**Calendar of planned activities for Goal 1 --** In chronological order, briefly describe the procedures/activities planned to achieve Goal 1

Activity	When will the activity take place
Example: Collaborating with other CCs complete SUBS AA Degree Authorization to Plan (AtP)	Example: Fall 2015
Introduce the new technology parts washer to advisory members.	Fall 2014

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**Define Goal (Action Strategy) 2**

Update current diesel engines (mechanical) to electronically controlled diesel engines. Some of these engines have been here for the past 25 years.

**Alignment of Goal 2 to ILO(s)**

ILO1

ILO2

**Alignment of Goal 2 to Strategic Plan (SP)**

[http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

**Explain how Goal 2 aligns with an Action Strategy in the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale. If Goal 2 does not align with a listed strategy, explain how it aligns to a SP Performance measure. Then, propose a new action strategy in the next field.**

A1.1. Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved.  
New Strategy

B2.c. Seek funding for specialized program and student needs identified by survey

**Proposed New SP Action Strategy/Strategies (if applicable)** – If Goal 2 does not align with a listed HawCC Action Strategy, indicate above how it aligns with a Performance Measure, and then use the field below to propose a new Action Strategy to be added to the HawCC Strategic Plan. New action strategies should be written in generalized terms so that other Programs and Units could also align their goals to them in the future.

1. The new electronically controlled diesel engine will be introduced into the program during lecture and lab activities. This will enhance the program and prepare students for industry expectation.

**Alignment of Goal 2 to Academic Master Plan (AMP)**

Academic Master Plan: [http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

AMP Appendix: <http://hawaii.hawaii.edu/docs/academic-master-plan-appendix-priority-actions.pdf>

Indicate which Academic Master Plan (AMP) Action Priorities Goal 2 aligns with and provide supporting reasoning.						
	STEM	Graduation Remediation Workforce	Student Transfer	Underserved Populations	Green Curricula	Program Development
Update current diesel engines (mechanical) to electronically controlled diesel engines. Some of these engines have been here for the past 25 years.		X				X

<p><b>UH System Collaboration (if applicable) –</b></p> <ul style="list-style-type: none"> <li>• Include collaboration efforts w/other campuses.</li> <li>• Include alignment with the UHCC Initiatives <a href="http://uhcc.hawaii.edu/OVPCC/">http://uhcc.hawaii.edu/OVPCC/</a> (listed on the left of John Morton's picture).</li> </ul>

**Calendar of planned activities for Goal 2 --** *In chronological order, briefly describe the procedures/activities planned to achieve Goal 2*

Activity	When will the activity take place
Need to acquire proper funding for equipment, related components and training.	Spring 2015 - fall 2015

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**Define Goal (Action Strategy) 3**

Heavy duty truck wireless lifting system, 48 tons, 6 set.
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**Alignment of Goal 3 to ILO(s)**

ILO1
ILO2

**Alignment of Goal 3 to Strategic Plan (SP)**

[http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

**Explain how Goal 3 aligns with an Action Strategy in the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale. If Goal 3 does not align with a listed strategy, explain how it aligns to a SP Performance measure. Then, propose a new action strategy in the next field.**

A1.1. Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved.  
New Strategy

B2.c. Seek funding for specialized program and student needs identified by survey

**Proposed New SP Action Strategy/Strategies (if applicable)** – *If Goal 3 does not align with a listed HawCC Action Strategy, indicate above how it aligns with a Performance Measure, and then use the field below to propose a new Action Strategy to be added to the HawCC Strategic Plan. New action strategies should be written in generalized terms so that other Programs and Units could also align their goals to them in the future.*

1. The new heavy duty truck wireless lifting system will be introduced into the program during lecture and lab activities. This will enhance the program and prepare students for industry expectation.

### Alignment of Goal 3 to Academic Master Plan (AMP)

Academic Master Plan: [http://hawaii.hawaii.edu/docs/HawCCStrategicPlan\\_2008-2015\\_10-29-09.pdf](http://hawaii.hawaii.edu/docs/HawCCStrategicPlan_2008-2015_10-29-09.pdf)

AMP Appendix: <http://hawaii.hawaii.edu/docs/academic-master-plan-appendix-priority-actions.pdf>

**Indicate which Academic Master Plan (AMP) Action Priorities Goal 3 aligns with and provide supporting reasoning.**

	STEM	Graduation Remediation Workforce	Student Transfer	Underserved Populations	Green Curricula	Program Development
Update current diesel engines (mechanical) to electronically controlled diesel engines. Some of these engines have been here for the past 25 years.		X				X

**UH System Collaboration (if applicable)** –

- Include collaboration efforts w/other campuses.
- Include alignment with the UHCC Initiatives <http://uhcc.hawaii.edu/OVPCC/> (listed on the left of John Morton's picture).

**Calendar of planned activities for Goal 3 - In chronological order, briefly describe the procedures/activities planned to achieve Goal 3**

Activity	When will the activity take place
Need to acquire proper funding for equipment, related components and training.	Spring 2015 - fall 2015

## Part V: Resource Implications

### A. Cost Item 1

Description	<b>Type</b> <ul style="list-style-type: none"> <li>● Personnel</li> <li>● Facilities</li> <li>● Equipment</li> <li>● Health/Safety</li> <li>● Others (Define)</li> </ul>	Estimated Cost
Updated electronically controlled diesel engine.	Equipment	\$25,000

### Alignment of Cost Item 1 to Strategic Plan (SP)

<p><b>Explain how Cost Item 1 aligns with the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale</b></p>
<p>Example: Cost Item 1 aligns with SP A1.1 (Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved.) by ...</p>
<p>B2.b. Survey employers and incumbent workers to determine higher education needs of workers, scheduling of classes and curriculum</p>
<p>B2.c. Seek funding for specialized program and student needs identified by survey</p>

### Alignment of Cost Item 1 to Academic Master Plan (AMP)

<p><b>Explain how Cost Item 1 aligns with the Academic Master Plan (AMP) Action Priorities.</b></p>
<p>Example: Cost Item 1 aligns with Action Priority STEM because an instructor is necessary to develop the program.</p>
<p>10.6 (2013) Update student learning outcomes and develop assessment for the courses.</p>
<p>10.7 (2013) Develop assessment strategies for students learning outcomes.</p>

### Alignment of Cost Item 1 to Strength(s)

<p><b>Explain how Cost Item 1 aligns with program Strength (From Part II. Section C). Address and provide supporting rationale. If there's no alignment, write "No Alignment."</b></p>
<p>Example: No Alignment</p>
<p>S3. The student completion rate.</p> <p>Electronically controlled diesel engine will be introduced into the program during lecture and lab activities. Advisory council member recommends that the program methodology should include electronically controlled diesel engines. This will enhance the program and prepare students for industry expectation.</p>

### Alignment of Cost Item 1 to Weaknesses(s)

**Explain how Cost Item 1 aligns with Weakness (From Part II. Section C). Address and provide supporting rationale. If there's no alignment, write "No Alignment."**

W1. Updating current diesel engines to electronically controlled diesel engine for the DIMC 20 courses.

\*\*\*\*\*

**B. Cost Item 2**

Description	<b>Type</b> <ul style="list-style-type: none"> <li>● Personnel</li> <li>● Facilities</li> <li>● Equipment</li> <li>● Health/Safety</li> <li>● Others (Define)</li> </ul>	Estimated Cost
Storage racking for DIMC shop.	Equipment	\$30,000

**Alignment of Cost Item 2 to Strategic Plan (SP)**

**Explain how Cost Item 2 aligns with the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale**

B2.b. Survey employers and incumbent workers to determine higher education needs of workers, scheduling of classes and curriculum

B2.c. Seek funding for specialized program and student needs identified by survey

**Alignment of Cost Item 2 to Academic Master Plan (AMP)**

**Explain how Cost Item 2 aligns with the Academic Master Plan (AMP) Action Priorities.**

10.6 (2013) Update student learning outcomes and develop assessment for the courses.

10.7 (2013) Develop assessment strategies for students learning outcomes.

**Alignment of Cost Item 2 to Strength(s)**

**Explain how Cost Item 2 aligns with program Strength (From Part II. Section C). Address and provide supporting rationale. If there's no alignment, write "No Alignment."**

S3. The student completion rate.

**Alignment of Cost Item 2 to Weaknesses(s)**

**Explain how Cost Item 2 aligns with Weakness (From Part II. Section C). Address and provide supporting rationale. If there's no alignment, write "No Alignment."**

W2. Lacks sufficient lab work area.

Heavy duty structural racking to help store training materials to allow more space on the shop floor for

students to perform practical projects and complete rubric assignments. Due to shop floor limitation and student safety reason the system safety officer recommends that program training materials be stored on pallet rack systems to allow for more safe and efficient floor accessibility.

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**C. Cost Item 3**

Description	<b>Type</b> <ul style="list-style-type: none"> <li>● Personnel</li> <li>● Facilities</li> <li>● Equipment</li> <li>● Health/Safety</li> <li>● Others (Define)</li> </ul>	Estimated Cost
Environmental parts washer.	Equipment	\$10,000

**Alignment of Cost Item 3 to Strategic Plan (SP)**

<p><b>Explain how Cost Item 3 aligns with the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale</b></p>
<p>B2.b. Survey employers and incumbent workers to determine higher education needs of workers, scheduling of classes and curriculum</p>
<p>B2.c. Seek funding for specialized program and student needs identified by survey</p>

**Alignment of Cost Item 3 to Academic Master Plan (AMP)**

<p><b>Explain how Cost Item 3 aligns with the Academic Master Plan (AMP) Action Priorities.</b></p>
<p>10.6 (2013) Update student learning outcomes and develop assessment for the courses.</p>
<p>10.7 (2013) Develop assessment strategies for students learning outcomes.</p>

**Alignment of Cost Item 3 to Strength(s)**

<p><b>Explain how Cost Item 3 aligns with program Strength (From Part II. Section C). Address and provide supporting rationale. If there’s no alignment, write “No Alignment.”</b></p>
<p>S1. DIMC program class size has continued to be at a full capacity rate.</p>

**Alignment of Cost Item 3 to Weaknesses(s)**

<p><b>Explain how Cost Item 3 aligns with Weakness (From Part II. Section C). Address and provide supporting rationale. If there’s no alignment, write “No Alignment.”</b></p>
<p>W3. Lacks environmentally safe, parts washing system.</p> <p>Environmental parts washer will help reduce the use of harmful solvent and chemicals for safe cleaning of heavy duty equipment parts, student health and the environment.</p>

## **Part VI: Justification for Program Existence**

**Write a brief statement describing the value of this Program to the College. Is your Program sustainable? If so, briefly state why. If not, briefly state why the College should continue to keep your Program open.**

(Sources include Industry Validation, ARPD Data Validation, Trends and Other Factors.)