

HAWAII COMMUNITY COLLEGE PROGRAM REVIEW REPORT

Automotive Mechanics Technology

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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)

The program prepares the student for employment as a general mechanic in a service station or auto dealer's shop, or as a specialty mechanic or a specialist on engine tune-ups or electrical systems.

This program has been in existence since 1941 servicing our communities needs in the transportation trades. Graduates have been placed in every facet of the automotive industry. They have found careers in the private sector as well as government agencies. Many have since become employers/managers as they now own and operate businesses of their own which creates an excellent career networking system. Some have ventured to the mainland as well as internationally in Japan, Europe and China.

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 the process of obtaining a full time APT that will be shared with the Auto Body Program. This person will be tasked with reviewing safety and operational procedures in the lab as well as clerical work as required to complete work orders and dealing with parts suppliers. This will free up instructors to concentrate on instructional tasks in the lab and allow more time to be used towards improving/updating all aspects of the program.

CERC Comments and Feedback --

CERC Comments as listed in most recent Comprehensive Review.

Part II: Program Effectiveness

Table 1: Description and Alignment with Mission and ILOs

- The ILO alignment was excellent, but the alignment with the college's mission was much weaker.
- Nice narrative, but more specific data would help to support statements.
- There is overlap between the program's Mission Statement and the Program Description that needs to be addressed.
- ILO2 description should be expanded.
- ILO3 should also be expanded to talk about how the department works with the students, and how they develop the knowledge, skills, and values to contribute to our community. This talks more to the students and not to what the program actually does to get them to where they are.
- It's good to see that students are finding jobs coming out of school, finding jobs abroad as well as opening their own businesses locally.

Table 2: Progress Report of Previous Goals

- The goals were adequate; however, additional information regarding the progress of each goal would increase the quality of this section.
- The Progress Evaluation details were missing for two out of three of the previous Goals and it is unclear what "ongoing" means.
- Goals 2 and 3 should be written to make them easier to measure. The evaluation should state whether these goals were met or not, and if there was curriculum change, or if there was no reason to change the curriculum, i.e. no changes in technology, then the evaluation should state that.

Table 3: Analysis of Strengths

- More supporting data would strengthen this area, specifically data showing how many graduates the program

produces each year, and the numbers of students placed in jobs locally, on other islands, or the continent. This information is available in the table in Part I and needs to be integrated into Table 3.

- The strengths, as stated, were a bit confusing. Reader was left wondering what the actual strengths were.
- Providing numbers showing how many businesses or agencies have hired graduates would provide evidence to show the value of the program to the College and community.
- CERC is aware that students in the program do live jobs and more detail about this would have enhanced report.

Table 3: Analysis of Weaknesses

- It is unclear why the decline in the already low numbers of nontraditional (female) students is a weakness and more explanation is needed. What are recent numbers? Was there a goal?
- The weaknesses are relevant, however specific information about the equipment in need of replacement and new equipment needed would strengthen the supporting evidence.
- Weakness 3 requires clarification as it is unclear whether the program is currently NATEF certified or not, and if it is whether the cost of maintaining certification is a weakness.

Table 4: Program Learning Outcome Assessment Summary

- Although the PLO's were listed, there was no assessment data described or summarized, and no explanation of assessment tools used. There was also no changes made to the program in response to changes in industry and technology.
- There was no industry report, just a statement that there is an advisory council used to provide input about relevant course assessments, but no explanation of how this is done. Nor did it implement any changes at all to the program despite changes in technology as well as the demands of industry.
- More explanation needed for what "low scoring percentages" they are referring to.

Trends and Other Factors

- Only one trend was discussed describing a national shift towards requiring certifications, i.e. A.S.E. The report could have expanded upon technological changes and provided a discussion of the demand for biodiesel.
- Data would be helpful showing how many graduates or students take the exam and how many pass/fail.
- The program should consider making passing the National Exams as part of a Student Learning Outcome. If cost is an issue, then the practice exam results already given could be used as a measure of success.
- ASE certification preparation is very important to students and this information is very helpful. More data from different sources would strengthen this area.

External Factors

- There was no specific reference to external factors, however one trend was noted. Other information in the report indicated that there are other trends that could have been mentioned such as trends in technological changes.
- ASE test taking timing is important as many of our students are economically challenged and may benefit from waiting to test until they are working in the field when they are often subsidized by their employers.

Overall Recommendations and Comments

- A suggestion was made to infuse Hawaiian culture into some of the program course material to enrich the learning experience or another option is to include a 1-credit Hawaii focus course to the program requirements. This will strengthen the connection to ILO3
- Devoting more time and providing more details in each section would have resulted in a stronger document, better reflecting the AMT programs strengths and challenges.
- Modification to the Program Student Learning Outcomes section of the template resulted with no indication to which of the six PLOs listed were assessed, which courses were evaluated, and what changes were implemented as a result of the Assessment.
- The program can benefit through a self-assessment and its alignment to student success. The form was completed but not substantively enough to determine if they are meeting their goals and objectives and the evidence of student success is weak.

Part III: Goals for Program Improvement

Table 5: Goals and Alignment

- Goals one and two are well defined. A clearer statement of the alignment of all three goals to the ILOs, in particular ILO 1 and 3, would strengthen this section of the report.
- Goal three is good although it needs to be written more clearly to express not only the subject, but also the actions to be taken.
- Please explain what is meant by "proper equipment and training" stated as an Activity under Goals 2 and "in the meantime?"

- There is a calendar of activities but it's very general and more specific information would be helpful. The responses are adequate but it is unclear how objectives will be met.

Part IV: Justification for Program Existence

- The AMT program provides a valuable service to the college, the local community and the state, i.e. it prepares students very well for entry level Automotive Technician positions.
- Data from the summary chart and the ARPD would really strengthen this area.
- This statement would be a lot stronger if specific details were provided, for example the number of graduates, % of job placement, etc. Repetition of this information was noted throughout the document which weakened the justifications offered in the report.
- It is recommended that more value be added to this summary instead of restating elements in the Program Description. It is evident that AMT is a good program that has been in existence since 1941 and that many have profited from being a part of the program.

Overall Recommendations and Comments for Program:

- It is obvious that the program is valuable and provides an important resource for HawCC students and for the local community, but more detailed information and analysis would have provided for an even richer Comprehensive Program Review.
- A high percentage of the workforce drives a car and needs to get their car fixed or maintained; therefore we realize we need this program. However the report was written very generally and more data and more editing would significantly strengthen this document.
- Consider NSF or other CTE grants/funding to aid in updating some of the technology elements and needs of the program.
- Grammatical errors made it difficult to concentrate on reviewing the report. If you are doing something in the program, it is not necessary to write "...will continue to...". You may write "...continue to..." since you are already engaged in the fulfillment of the criteria being reviewed.
- CERC recommends one of two things:
 - Do the report in a separate Word document and use spell check and grammar check before cutting and pasting the information into the Comprehensive Review Template.
 - Ask for assistance from someone or another department willing to assist in reviewing the report for fluidity and proper grammatical use.
- The longevity of the program and how it meets the needs of the community are positive elements. Keep it up! Great sustainability and impressive steady enrollment in the program.

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.

| Demand Health UNHEALTHY | Efficiency Health HEALTHY | Effectiveness Health HEALTHY |
|--|--|--|
| <p>Although indicators exhibit a flat economy, our students have consistently found employment in the industry at an average of 90%. This is due to the extensive career network with employers that the AMT Program possesses. Figures that are presented in calculations only reflect government positions. This program helps locate employment for students in the private sector and many related industries. It has been quite successful in locating employment opportunities for students. This has been the case for the past 30 years. Placement in industry has been consistent regardless of the economic climate of the state or nation. The program has always had the intent of expanding to attract a larger student population. The current intake is 20 new students each year. Facility, budget and personnel limitations are currently preventing expansion. The program has recently been selected to participate in career day activities at the Kamehameha School Keaau campus. The program hopes to increase Hawaiian ancestry students by exposing them to Hawaii Community College opportunities. We also are actively recruiting non-traditional students at career fairs, island wide.</p> | <p>We will continue to maintain this area at the current levels.</p> | <p>We will continue to maintain this area at the current levels.</p> |

| |
|-----------------------|
| Overall Health |
| CAUTIONARY |

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.

We did not meet non-traditional participation and completion rates. The program has placed an emphasis on recruiting non-traditional students at all career activities at our local high schools. Hawaii Community College has previously had special grants specifically for non-traditional students. Even with those opportunities the levels of these student counts were low. We will continue our efforts to improve in these areas.

5P1 The program will actively recruit and promote non-traditional as the target population.
Continuously

5P2 Special attention will be paid to ensure academic success for these students. Utilization of tutors and other services if warranted.
Continuously

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 rate 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 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 are distributing payroll 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.

This program primarily services our local community with a multi-cultural graduating student population that understands, respects and blends extremely well with our 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.

Communication is the key for success in this program. Students must receive information and properly interpret/process that information from instructors on theory and repair applications. They must retrieve symptoms from customers on vehicle problems. They will utilize the internet for procedures or "hidden" information that is not presented in our on-line repair manual. They must converse with parts houses in preparing estimates and eventual ordering of parts required for the repair. This is done on a daily basis.

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"

Proper diagnosis encompasses that they utilize critical thinking in problem solving along with utilizing the proper application of techniques. They must select manuals and other sources of information for repairing specific problems along with the correct tools/equipment to pin point specific failures. Students will then finalize the course of action for repairs. Types of repairs encountered cover the entire vehicle (bumper to bumper). They will consistently encounter logistic problems as unrelated systems or sub-systems will need to be disabled/disassembled in order to access problem areas. This done on a daily basis.

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"

Upon graduation students will seek employment in the field of study. Many find jobs locally at full service service stations, general/specialty repair shops, franchised companies, body shops (mechanical repairs on crashed vehicles), and new car dealerships. A few have ventured to the mainland and are employed on the west coast, Texas, Michigan, and Georgia. The program also has graduates in Japan, Europe and mainland China. The local employers and customers are multi-cultured as are our graduates. Some of those with Hawaiian ancestry have enlisted financial aid from various agencies and have created successful businesses locally. Graduates enter our local economy island wide and become positive contributing citizens.

B. Program Mission – Write Official Program Mission

The mission of the Automotive Technology (AMT) Program is to prepare students for successful employment as an automotive mechanic. The AMT program offers a 48 credit Certificate of Achievement and a 63 credit Associates in Applied Science (AAS) degree. Students completing the AAS degree are ready for the Automotive Service Excellence (ASE)

C. Strengths and Weaknesses

1) Strengths (Top 3 defined)

| State Strength | Using supporting evidence, describe why this is a strength |
|--|---|
| <p><i>Example:</i> Program Curriculum</p> | <p><i>Example:</i> 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</p> |
| <p>1. The programs performance and reputation in the community</p> | <p>This program has been in existence since 1941 servicing our communities needs in the transportation trades. Graduates have been placed in every facet of the automotive industry. They have found careers in the private sector as well as government agencies. Many have since become employers/managers as they now own and operate businesses of their own which creates an excellent career networking system.</p> |
| <p>2. High demand for well-trained auto mechanics</p> | <p>Due to the automotive industry's drastic technological changes, the employment climate has always presented new opportunities for students.</p> |
| <p>3. Students work on live jobs</p> | <p>Prepares them for "real life work" environment and experience in all facets of the repair industry.</p> |

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> |
| 1. Newer cars need different equipment; the program does not have this equipment or the budget to purchase it | Lack of up-to-date equipment is a detriment to lab activities. Out-dated equipment provides some experience but is not current with industry standards. A detrimental factor for employers as they must invest more training time for new employees. | |
| 2. The program has continued to experience declining non-traditional student count | The recent numbers reflected on are poor but we have traditionally always had a few non-traditional students. The prior graduating classes (2) had no non-traditional students enrolled even with active recruiting. | |
| 3. Program cost of operation for existing operation or future considerations for NATEF certification. | Costs of the program becoming nationally certified; NATEF certification requires substantial initial outlays for equipment and routine equipment replacements. Equipment requirements are based on student counts; in most instances where a program is getting by with one piece of equipment NATEF would require multiple pieces. NATEF requirements depreciate equipment more rapidly necessitating replacement much sooner than the program is used to. | |

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

AMT 60H, AMT 60I, AMT 60J, AMT 60K

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."

A level of & 70% is set as the target for data. The percentage was approved by the advisory committee.

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

A rubric was utilized by three industry representatives. They evaluated each student that was present for that particular day. Data was collected and included in learning outcome strategies. Each area was given a numerical score to reflect the level of achievement.

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.

Low scoring percentages are rising, getting closer to target numbers of expectation.

The rubric category "safety" scored the highest at 92%. The category "quality of work" and "diagnostic skills" scored the lowest at 66%. This was a slight improvement over the last assessment of AMT 60H and AMT 60K.

The overall average tabulated score was 79% which is within our target range.

Changes Implemented as a result of Assessment

Evaluation of the changes that were implemented

| | |
|-------------------------|--|
| <p><i>Change 1:</i></p> | <p><i>Evaluation of Change 1:</i> Appears to be working, will review with next assessment.</p> |
| <p><i>Change 2:</i></p> | <p><i>Evaluation of Change 2:</i></p> |

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.*

In the lowest scoring categories, "quality of work" and "diagnostic skills" the acquiring of cutting edge technology tools would greatly enhance those figures. The automotive field has an extremely high progressive rate and the latest tools or aids are paramount for the students success in accuracy and speed. The AMT program will strive to acquire the latest tools and equipment to keep abreast with industry. This would enable to students to better their career opportunities. We were heavily supported this past year in this area and the increase in percentages from 72% to 76% are a positive reflection of it. We strongly feel that support in this area was the main reason that the rubric scores were so improved.

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.*

Program utilizes two assessors. One is active (private enterprise) and the other retired (dealership). Both belong to an island wide association of automobile businesses. Both program instructors are also members.

Advisory council has met and agrees with the performance and direction of the program.

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 |
|---------------------|---|
| AMT 20 | INTRO TO AUTO |
| AMT 23 | LUBRICATION |
| AMT 30 | ENGINES |
| AMT 40B | FUEL SYSTEM |
| AMT 40C | ELECTRICAL SYSTEM |
| AMT 43 | HEATING & AIR CONDITION (INACTIVE COURSE) |
| AMT 46 | POWER TRAIN |
| AMT 50 | AUTO TRANSMISSION |
| AMT 53 | BRAKE SYSTEMS |
| AMT 55 | SUSPENSION AND STEERING |
| AMT 55B | SUSPENSION AND STEERING (INACTIVE COURSE) |
| AMT 57 | EMISSION |
| AMT 60H | DIAGNOSTIC AND REPAIR: ELECTRICAL/FUEL SYSTEM AND RELATED COMPONENTS |
| AMT 60I | DIAGNOSTIC AND REPAIR: ENGINES AND RELATED COMPONENTS |
| AMT 60J | DIAGNOSTIC AND REPAIR: SUSPENSION/BRAKE AND RELATED COMPONENTS |
| AMT 60K | DIAGNOSTIC AND REPAIR: POWER TRAIN/TRANSMISSIONS AND RELATED COMPONENTS |
| AMT 80 | SMALL ENGINE REPAIRS I (INACTIVE COURSE) |
| AMT 83 | CHAIN SAW REPAIR (INACTIVE COURSE) |
| AMT 84 | SMALL ENGINE II (INACTIVE COURSE) |
| AMT 85 | SMALL ENGINE III (INACTIVE COURSE) |
| AMT 86 | OUTBOARD ENGINE REPAIR (INACTIVE COURSE) |
| AMT 87 | ADVANCED OUTBOARD REP (INACTIVE COURSE) |
| AMT 101 | BASIC AUTO MAINT/SAFETY (INACTIVE COURSE) |

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 |
|---|-----------|-----------|-----------|-----------|-----------|
| AMT 20 - INTRO TO AUTO | Fall | X | | X | |
| AMT 23 - LUBRICATION | Fall | X | | X | |
| AMT 30 - ENGINES | Fall | X | | X | |
| AMT 40B - FUEL SYSTEM | Fall | X | | X | |
| AMT 40C - ELECTRICAL SYSTEM | Spring | | X | | X |
| AMT 43 - HEATING & AIR CONDITION (INACTIVE COURSE) | | | | | |
| AMT 46 - POWER TRAIN | Spring | | X | | X |
| AMT 50 - AUTO TRANSMISSION | Fall | X | | X | |
| AMT 53 - BRAKE SYSTEMS | Fall | X | | X | |
| AMT 55 - SUSPENSION AND STEERING | Fall | X | | X | |
| AMT 55B - SUSPENSION AND STEERING (INACTIVE COURSE) | | | | | |
| AMT 57 - EMISSION | Spring | | X | | X |
| AMT 60H - DIAGNOSTIC AND REPAIR: ELECTRICAL/FUEL SYSTEM AND RELATED COMPONENTS | | | | | |
| AMT 60I - DIAGNOSTIC AND REPAIR: ENGINES AND RELATED COMPONENTS | Spring | | X | | X |
| AMT 60J - DIAGNOSTIC AND REPAIR: SUSPENSION/BRAKE AND RELATED COMPONENTS | Spring | | X | | X |
| AMT 60K - DIAGNOSTIC AND REPAIR: POWER TRAIN/TRANSMISSIONS AND RELATED COMPONENTS | Spring | | X | | X |
| AMT 80 - SMALL ENGINE REPAIRS I (INACTIVE COURSE) | | | | | |
| AMT 83 - CHAIN SAW REPAIR (INACTIVE COURSE) | | | | | |
| AMT 84 - SMALL ENGINE II (INACTIVE COURSE) | | | | | |

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|---|--|--|--|--|--|
| AMT 85 - SMALL ENGINE III (INACTIVE COURSE) | | | | | |
| AMT 86 - OUTBOARD ENGINE REPAIR (INACTIVE COURSE) | | | | | |
| AMT 87 - ADVANCED OUTBOARD REP (INACTIVE COURSE) | | | | | |
| AMT 101 - BASIC AUTO MAINT/SAFETY (INACTIVE COURSE) | | | | | |

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 |
|---|---|
| <i>Example:</i> 26.1 2009-2010: Recruit and Hire New SUBS -- FTE BOR Appointed Faculty | <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. |
| Utilize technology to teach students about repairs – The program will use Mitchell On Demand, a computer based repair manual that is commonly used in the industry. | Currently being used but subscription needs to be renewed in 2013. The renewal will be very, very critical for the AMT Program to meet its goals. |
| Explore and research incorporating Hybrid and EV technology into the curriculum. Make changes to curriculum, if necessary. | Ongoing. |
| Request funds to up-grade computer systems to meet current diagnostic systems that have blue tooth systems. | Ongoing |

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

Define Goal (Action Strategy) 1

| |
|---|
| <i>Example: Establish AA Degree in SUBS</i> |
| Incorporate biodiesel instruction in the existing curriculum. |

Alignment of Goal 1 to ILO(s)

| |
|---|
| Explain how Goal 1 aligns with ILO(s) and provide supporting rationale |
|---|

| |
|---|
| 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

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 ...

B1.g. Seek opportunities to infuse cultural/global awareness into curriculum

B1. New Strategy

E3.c. Maintain, repair, and replace vehicles owned by the College's programs and consider developing a college vehicle pool, including replacing existing vehicles with hybrid and electronic vehicles

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.*

Biodiesel burns cleaner and doesn't rely on fossil fuels. The technology is relatively new but once accepted by the transportation sector will become a common commodity, .

There already exists a biodiesel processor at the HawCC, but has yet to be installed. The program will create curricula to support the operation and sustainability of biofuel production, which will be used in the State's vehicle inventory that currently uses regular diesel, as well as in the DISL program.

Graduates will be more employable by possessing basic biodiesel knowledge. The Big Island has a couple of refineries already in operation. With increased acceptance of the product, the industry will need more technicians to meet demand.

Alignment of Goal 1 to Academic Master Plan (AMP)

Academic Master Plan: 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 | Student Transfer | Underserved Populations | Green Curricula | Program Development |

| | | | | | | |
|--|----------|------------------|--|--|----------|----------|
| | | Workforce | | | | |
| <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> | X | X | | | | X |
| Addition will provide students knowledge of bio-diesel. Will enhance the island's self sustainability. | | | | | X | X |

| |
|---|
| <p>UH System Collaboration (if applicable)</p> <ul style="list-style-type: none"> • 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). <p><i>Example: There is dialogue among MauiCC, KauaiCC, and HawaiiCC to establish a common AA Degree in SUBS.</i></p> |
| |

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 |
|--|--|
| <i>Example: Collaborating with other CCs complete SUBS AA Degree Authorization to Plan (AtP)</i> | <i>Example: Fall 2015</i> |
| Modify existing facility and install biodiesel equipment. | Fall 2014 - Spr. 2015 |
| | |

Define Goal (Action Strategy) 2

| |
|---|
| Design new module for air conditioning to address the new refrigerant designed for mobile units. Due to be released in 2015. Called HFO-1234yf. Designed as a more environmentally friendly chemical. |
|---|

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

| |
|---|
| 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

B1. Increase the number of degrees awarded, and/or transfers to UH baccalaureate programs that lead to occupations where there is a demonstrated state of Hawai'i shortage of qualified workers, or where the average annual wage is at or above the U.S. average (2006=\$38,651).
 New Strategy

E3. Promote sustainability by making more efficient use of existing resources.
 New Strategy

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.*

Due to the government's ban on certain chemicals which has proven detrimental. The program must follow suit and provide instruction to deal with the new AC refrigerant.

As new technologies are utilized in the automobile industry, the program is required to keep pace and provide applicable instruction.

Alignment of Goal 2 to Academic Master Plan (AMP)

Academic Master Plan: 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 |
|---|------|----------------------------------|------------------|-------------------------|-----------------|---------------------|
| Will keep students abreast of the ever changing technology advances in the auto industry. This enhances the student's employability and up to date with the green movement. | | X | | | 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 2 -- *In chronological order, briefly describe the procedures/activities planned to achieve Goal 2*

| Activity | When will the activity take place |
|---|-----------------------------------|
| Obtain the proper equipment and training. | Fall 2015 - Spr. 2016 |

Define Goal (Action Strategy) 3

| |
|--|
| Super Critical State Fuel Injection System |
|--|

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

| |
|--|
| <p>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.</p> |
| <p>A1.1 Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved. New Strategy</p> |
| <p>B1. Increase the number of degrees awarded, and/or transfers to UH baccalaureate programs that lead to occupations where there is a demonstrated state of Hawai'i shortage of qualified workers, or where the average annual wage is at or above the U.S. average (2006=\$38,651). New Strategy</p> |
| <p>E3. Promote sustainability by making more efficient use of existing resources. New Strategy</p> |

| |
|---|
| <p>Proposed New SP Action Strategy/Strategies (if applicable) – <i>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.</i></p> |
| <p>Due to the government's concern on vehicle emissions, new technologies to eliminate fossil fuels and improve fuel mileage has been implemented. The program must follow suit and provide instruction to deal with such technologies.</p> |

| |
|--|
| <p>As new technologies are utilized in the automobile industry, the program is required to keep pace and provide applicable instruction.</p> |
|--|

Alignment of Goal 3 to Academic Master Plan (AMP)

Academic Master Plan: 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 |
| A drastic change for the vehicular world emissions situation. Will drastically reduce dependency on fossil fuel and increase fuel mileage. Modification to fuel injection systems will provide 4 cylinder gas mileage into the 90 mile/gallon range. Global as well as local communities will be affected. | | X | | | X | X |
| | | | | | | |

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

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 |
|---------------------------------------|-----------------------------------|
| Obtain proper equipment and training. | Fall 2017- Spr. 2018 |

Part V: Resource Implications

A. Cost Item 1

| Description | Type <ul style="list-style-type: none"> ● Personnel ● Facilities ● Equipment ● Health/Safety ● Others (Define) | Estimated Cost |
|--------------------|--|----------------|
| Mitchell On Demand | Equipment | \$5,000 |

Alignment of Cost Item 1 to Strategic Plan (SP)

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|--|
| Explain how Cost Item 1 aligns with the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale |
| Example: Cost Item 1 aligns with SP A1.1 (Increase Native Hawaiian enrollment by 3% per year particularly in regions that are underserved.) by ... |
| B1.a. Use enrollment data to focus on strategic recruitment, retention, graduation and transfer |
| 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 1 to Academic Master Plan (AMP)

| |
|--|
| Explain how Cost Item 1 aligns with the Academic Master Plan (AMP) Action Priorities. |
| Example: Cost Item 1 aligns with Action Priority STEM because an instructor is necessary to develop the program. |
| 6.1 Review course-level outcomes and submit necessary curriculum forms to update course outlines and syllabus. |
| 6.2 Develop and document assessment strategies for student learning outcomes. |
| 6.3 Develop a system to track the results of students taking the ASE exams |

Alignment of Cost Item 1 to Strength(s)

| |
|---|
| 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." |
| Example: No Alignment |
| S3 from Annual: high and improving completion rate |

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 from Annual: declining population of native Hawaiian students

Needed as this is our reference manual for all lab activities. It is utilized daily and a necessity for vehicle repair procedures, formulating estimates, calculating labor costs, technical service bulletins, and access to other links for repair or specifications. An essential tool that is used by all of the students on a daily basis. Lab activities would cease without it. Subscription will need renewal in 2013. The most critical tool for the AMT program.

B. Cost Item 2

| Description | Type <ul style="list-style-type: none"> ● Personnel ● Facilities ● Equipment ● Health/Safety ● Others (Define) | Estimated Cost |
|-----------------------|--|----------------|
| tire changing machine | Equipment | \$15,000 |

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

B1.a. Use enrollment data to focus on strategic recruitment, retention, graduation and transfer

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.

6.1 Review course-level outcomes and submit necessary curriculum forms to update course outlines and syllabus.

6.2 Develop and document assessment strategies for student learning outcomes.

6.3 Develop a system to track the results of students taking the ASE exams

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 from Annual: high and improving 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."

W1 from Annual: declining population of native Hawaiian students

Current technology requires servicing tire rim sizes 18" and larger. Our original equipment failed and the replacement was donated by one of the instructors. It is now 10 years later and the equipment is nearing the end of its life span. It will accommodate rim sizes up to 17" which is not at the standard of industry. The growing trend uses rim sizes up to 22". This is a necessity for the steering/suspension module that provides the student with saleable skills.

C. Cost Item 3

| Description | Type <ul style="list-style-type: none"> ● Personnel ● Facilities ● Equipment ● Health/Safety ● Others (Define) | Estimated Cost |
|----------------------------|--|----------------|
| Vehicle computer scan tool | Equipment | \$12,000 |

Alignment of Cost Item 3 to Strategic Plan (SP)

Explain how Cost Item 3 aligns with the Strategic Plan (SP). Include SP Reference(s) and provide supporting rationale

B2.a. Provide support services for re-entering adults: i.e. noncredit to credit conversions and credit for demonstrated skill/experiences, etc.

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 3 to Academic Master Plan (AMP)

Explain how Cost Item 3 aligns with the Academic Master Plan (AMP) Action Priorities.

6.1 Review course-level outcomes and submit necessary curriculum forms to update course outlines and syllabus.

6.2 Develop and document assessment strategies for student learning outcomes.

6.3 Develop a system to track the results of students taking the ASE exams

Alignment of Cost Item 3 to Strength(s)

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."

S3 from Annual: high and improving completion rate

Alignment of Cost Item 3 to Weaknesses(s)

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."

W1 from Annual: declining population of native Hawaiian students

Technology has progressed to the point that a new, more powerful tool is needed. Current tool can access vehicles up to 2008. Newer vehicles have greater computer capabilities that expand into anti-lock brakes, reactive suspensions, blue tooth in convenience packages, reverse vision, computer guided parking capabilities and a new brake activation system for inattentive drivers. We are not able to communicate with these systems with our current scanner.

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.)

This program has been in existence since 1941 servicing our communities needs in the transportation trades. Graduates have been placed in every facet of the automotive industry. They have found careers in the private sector as well as government agencies. Many have since become employers/managers as they now own and operate businesses of their own which creates an excellent career networking system. Some have ventured to the mainland as well as internationally in Japan, Europe and China.