Automotive Technology

2019
ANNUAL REPORT OF PROGRAM DATA

UNIVERSITY of HAWAIʻI®
MAUI COLLEGE

1. Program Description

a) Statement and brief description of the program including a listing of the program level Student Learning Outcomes (SLOs).
b) Program Mission
c) Date Program Website Last Reviewed/Updated.
d) Date Program Page Reviewed/Updated in Catalog.

Description of the Automotive Program:

The Automotive Technology program is to prepare students for employment in automotive service and repair. The laboratory phase of courses uses modern tools and equipment while performing actual "live" service and repairs on automobiles.

The classroom phase includes discussion of principles on the operation of automotive systems and components, demonstration of repair techniques, textbook assignments, and quizzes.

Basic mechanic hand tools, supplies, books, and working clothes are required for enrollment. A tool list is available from the instructor.

The Program Learner Outcomes are:

1) Write repair orders and estimates for customers.

2) Communicate, including processing repair orders and estimates to, customers, management, parts persons, and other technicians in the automotive industry.

3) Retrieve information through various types of resources including books, computers, videos, etc.

4) Demonstrate the ability to diagnose service and repair various types of vehicles and their systems.

5) Achieve job-seeking skills including, resume writing, preparation for interviews, etc.

The Program Mission:

The Mission of the Automotive Program is to provide exemplary entry-level technicians in the automotive and related fields, update skills of technicians in the field and leading them to becoming lifelong learners.

Date Program Website Updated:

N/A

Date Program Page Updated in Catalog:

Spring 2009

2. Analysis of the Program

a) Strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of the Quantitative Indicators. CTE programs must include an analysis of Perkins Core indicators for which the program did not meet the performance level. Include Significant Program Actions (new certificates, stop outs, gain/loss of positions, results of prior year's action plan).
b) Discuss course offering modality including online, hybrid, and skybridge.
c) Highlight new innovative student support efforts including FYE, etc.

Strengths and Weaknesses: The Overall of the Automotive Program is Healthy. The Effectiveness Indicators shows a decline in Successful Completion from 87% Year (17 - 18) to 75% this year (18 - 19). Persistence has also decline in year (18 - 19). Certificates and Degrees have gone down due to the economy improving and Industry have been employing our students before they achieve their degree.

There is a shortage of automotive technicians. Because of this, industry is willing to hire our student base on their skill level. The students are able to gain employment without doing the general education classes. A significant amount of our student's only want to take the automotive classes to gain their skill and knowledge needed to pass the Automotive Service of Excellence (ASE) National certification test.

Among Mechanic Schools ranking 2018 (posted in 2019), University of Hawaii Maui College Automotive Technology ranked 312 in the United States and number 1 among the other CC's Automotive Programs and other mechanic programs in Hawaii, (see Mechanic Schools. Com).

Strengths: The strength of the program are that we are using the Automotive of Service Excellence Education formally known as National Automotive Technicians Education Foundation (NATEF) curriculum and have successfully prepared students for industry.

Because of the shortage of automotive technicians throughout the nation, there is a big demand for our students. Our students have been able to gain employment both in Hawaii and on the mainland with wages that can provide to make living expenses without a second job. Their skills also can provide a business of their own.

We have other industries that are recruiting our students for employment because of the skills they have gained. The jobs include appliance technician, airport fueling attendant and maintenance, airport ramp technician, utility plant generator maintenance technician (MECO), submarine mechanic (Atlantis) and construction equipment maintenance and repair person. Our students

Weaknesses: The program did not meet the 1P1 Technical skills attainment.

The problem is infrastructure. With only one lab and one classroom shared by the instructors that was built with 1940's technology. The instructors have to battle with too small of a lab and classroom. Not enough storage space, old vehicles and out dated equipment.

We have been purchasing new equipment through the system replacement program. However, our program is limited because we still do not have enough equipment, supplies and adequate space for students to feel comfortable be in this learning environment.

We are not meeting industries standards. Students have to attend both day and night class in order to graduate in two years. The long hours does affect their ability to perform well especially in the evening classes.

Instructors teach up to 14 hours a day and it affects their ability to perform well. There is also a shortage of CTE instructors because of the low starting pay and the responsibilities given them. When hiring a new full-time instructor, there were only three applicants nationwide. One did not qualify. We have not been able to find lecture for our classes. This leaves the two full-time instructors with a large overload.

The senior faculty has a load of 43.25 TE's. 31.75 TE's is his instruction load, 6 TE's is for Program Coordinator duties for the Automotive Program, Auto-Body Program and the Welding courses in which he has to manage, equipment, supplies, class schedules, curriculum, lectures and mentor a new full-time faculty. 6 TE's is for CTE/Voc ED Department Chair duties. The other automotive full-time Faculty has an instruction load of 33.25 TE's. The senior instructor spends an average of 55 hours at school and 12 hours at home per week.

The Automotive TE's are based on Shop scale (Contact hours divided 24=TE's) This ratio to credit hours comes up 2:1. General Education Instructors scale (Contact hours divided by 15=TE's) Their ratio comes to 1:1. The Automotive instructors has contact with their students twice the amount of hours than the General Education Instructure that only have Lecture classes. The Automotive classes are not just shop classes. 50% to 60% of the class is lecture on theory and diagnosis. Lecture Lab scale has (Contact hours divide by 18= TE"s) The Automotive Classes should be calculated on Lecture Lab scale.

Most of our students are employed while they are attending classes, full-time and part-time. They have various type of jobs, such as automotive technicians, grocery store clerks, construction and military.

These students struggle to complete home assignments because of their commitment to work. They need the money for school cost, rent, car loans or helping the family make a living. Sometimes they miss classes because of work obligations. (night classes) This hampers their performance in the lab and classroom. This also affect their persistence to comeback. They achieve some automotive skills, become employable, and not return.

Industry does not recognize the AAS Degree. They look for ASE certifications. With these certifications you are able to be a licensed technician in the State of Hawaii. We should get credit for putting our student in jobs, not only counting, degrees or certificates.

We have met Perkins Indicators standards in 2P1 Completion, we had 10 Degrees and 8 Certificates awarded. Successful Completion at 75%.

3P1 Retention standard was met most of our student have been serious in gaining their skills for employment and have sacrificed their time and money. Through the deficiencies of the infrastructure related to the program, the instructors have been able to keep them focus on their goal of becoming an automotive technician.

4P1 Student Placement standard have been met. Placement in jobs for deserving student has been favorable because of the shortage of automotive technicians and other jobs that seek our students with mechanical skills.

5P1 and 5P2 is non-traditional students have not been met standards. We have no support in this area. We rely on our visitations to High schools, but cannot offer any support as we did in the past, when we did have training and funding. We have a toolbox with tools that we loan out to the non-traditional students to help defray cost. However, to seek employment they still need to purchase their own tools. We have work with several tool companies that will give our student a significant discount on tools for 2 years in the program.

3. Program Student Learning Outcomes

a) List of the Program Student Learning Outcomes
b) Program Student Learning Outcomes that have been assessed in the year of the Annual Review of Program Data.
c) Describe the assessment activity
d) Describe assessment results
e) Describe any changes that have been made as a result of the assessments.

The Program Learner Outcomes are:

1) Write repair orders and estimates for customers.

2) Communicate, including processing repair orders and estimates to, customers, management, parts persons, and other technicians in the automotive industry.

3) Retrieve information through various types of resources including books, computers, videos, etc.

4) Demonstrate the ability to diagnose service and repair various types of vehicles and their systems.

5) Achieve job-seeking skills including, resume writing, preparation for interviews, cover letter and follow-up letter.

Program Student Leaning Outcome assessed was number 5. Achieve job-seeking skills, including, resume writing, preparation for interviews, cover letter and follow-up letter in my cap stone class AMT 60. Diagnostic and Repair.

We used the services of Career Link and had their director, Juliana Patao instruct the students in their writing skills to prepare a resume, cover letter and follow-up letter. She also coached the student in preparation for job interview skills. We had very successful results with Juliana. All the students were able to complete their

assignments and were able to perform at 2 mock interviews. In which each student were evaluated and informed needed improvements. In the previous years, not every student was able to complete job interviews or did not get an assessment. Because of her experience and organization, she was able to achieve this goal.

4. Action Plan

a) Describe the action plan for the next academic year, including resource, curricular, professional development, or other next steps.
b) Include how the actions within the plan support the college's mission. In addition to the overall action plan for the program, include specific action plans for any Perkins Core Indicator for which the program did not meet the performance level.

Our Action Plan for next academic year, continue to recruit funding to help support the program. Continue to use the support we have been using from Career Link, Counseling Department, and Learning Center.

We will be working on changing our program map and changing some automotive courses to articulate with other CC"s Automotive Programs.

We will have to join the Auto-Body (ABRP) program with Automotive Program to help support to overcome the deficiencies that the ABRP Program has. Program Student Learner Outcomes will have to change; Student Learner Outcomes and Course Competencies will be modified. The ABRP method of instruction will have change from self-pace method to Lecture Lab.

We will continue professional development be attending seminars, automotive update classes and attending the North American Council of Automotive Teachers (NACAT) conference.

We are supporting the college mission by improving our curriculum, changing the program map. Continue using ASE education curriculum to follow industries standards and job placement in industry.

We will continue to work on improving on Perkins Core Indicators by getting funding to purchase up to date equipment and helping to acquire a newer building to meet industry standards.

We will continue to recruit instructors to lecture classes. This will help alleviate the overload and long hours that the current instructors have to spend at school. Having another full-time faculty would alleviate this problem.

5. Resource Implications

(physical, human, financial)

Resources needed:

1. Building to meet industry standards with a comfortable learning environment. To be able to hold short-term up-date classes for the community.

2. Full-time instructor to help alleviate the long hours and overload the current instructors have.

3. Funding for new equipment to meet industry standards. Replacement equipment to replace old obsolete equipment.

4. Continued support from Counselors, Learning Center and Career Link.

Appendix: ARPD data

College: University of Hawai'i Maui College
Program: Automotive Technology
Status: Report Complete

Program Quantitative Indicators

Overall Program Health: Healthy

Workforce Alignment: Classification of Instructional Programs (CIP) -to- Standard Occupational Classification (SOC)

Automotive Technology
CIP Code = 47.0617

49-3023 - Automotive Service Technicians and Mechanics
49-1011 - First-Line Supervisors of Mechanics, Installers, and Repairers

Print ARPD

	Demand Indicators	2016 - 17	2017 - 18	2018 - 19	Demand Health
1.	New & Replacement Positions (State)	636	635	639	
*2.	New & Replacement Positions (County Prorated)	72	70	73	
3.	Number of Majors	60	46	41	
3a.	Number of Majors Native Hawaiian	16	10	10	
3b.	Fall Full-Time	49%	53%	49%	
3c.	Fall Part-Time	51%	47%	51%	
3d.	Fall Part-Time who are Full-Time in System	0%	0%	0%	
3e.	Spring Full-Time	46%	56%	55%	Healthy
3f.	Spring Part-Time	54%	44%	45%	
3g.	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4.	SSH Program Majors in Program Classes	780	710	678	
5.	SSH Non-Majors in Program Classes	72	3	44	
6.	SSH in All Program Classes	852	713	722	
7.	FTE Enrollment in Program Classes	28	24	24	
8.	Total Number of Classes Taught	17	13	14	

NOTE: New & Replacement jobs updated (View Methodology).

Efficiency Indicators		2016 - 17	2017 - 18	2018 - 19	Efficiency Health
9.	Average Class Size	14	14	13	Healthy
*10.	Fill Rate	84.7%	85.8%	81.1%	
11.	FTE BOR Appointed Faculty	1	2	2	
*12.	Majors to FTE BOR Appointed Faculty	60	23	21	
13.	Majors to Analytic FTE Faculty	60	23	21	
13a.	Analytic FTE Faculty	2	2	2	
14.	Overall Program Budget Allocation	$217,115	$275,910	$0	
14a.	General Funded Budget Allocation	$183,286	$205,671	$0	
14b.	Special/Federal Budget Allocation	$0	$0	$0	
14c.	Tuition and Fees	$33,829	$70,239	$0	
15.	Cost per SSH	$255	$0	$0	
16.	Number of Low-Enrolled (<10) Classes	2	1	1	

Effectiveness Indicators		2016 - 17	2017 - 18	2018 - 19	Effectiveness Health
17.	Successful Completion (Equivalent C or Higher)	79%	87%	75%	Cautionary
18.	Withdrawals (Grade = W)	7	3	4	
*19.	Persistence Fall to Spring	72%	72%	67%	
19a.	Persistence Fall to Fall	49%	52%	38%	
*20.	Unduplicated Degrees/Certificates Awarded	23	15	13	
20a.	Degrees Awarded	13	8	10	
20b.	Certificates of Achievement Awarded	14	9	8	
20c.	Advanced Professional Certificates Awarded	0	0	0	
20d.	Other Certificates Awarded	10	9	5	
21.	External Licensing Exams Passed	0	0	0	
22.	Transfers to UH 4-yr	0	0	1	
22a.	Transfers with credential from program	0	0	1	
22b.	Transfers without credential from program	0	0	0	

	Distance Indicators	2016 - 17	2017 - 18	2018 - 19	
23.	Number of Distance Education Classes Taught	0	0	0	
24.	Enrollments Distance Education Classes	0	0	0	
25.	Fill Rate	0%	0%	0%	
26.	Successful Completion (Equivalent C or Higher)	0%	0%	0%	
27.	Withdrawals (Grade = W)	0	0	0	
28.	Persistence (Fall to Spring Not Limited to Distance Education)	0%	0%	0%	

	Perkins Indicators	Goal	Actual	Met	
29.	1P1 Technical Skills Attainment	93	87.5	Not Met	
30.	2P1 Completion	55	56.25	Met	
31.	3P1 Student Retention or Transfer	81.9	100	Met	
32.	4P1 Student Placement	66.25	76.47	Met	
33.	5P1 Nontraditional Participation	23.5	10.64	Not Met	
34.	5P2 Nontraditional Completion	23	7.14	Not Met	

	Performance Indicators	2016 - 17	2017 - 18	2018 - 19	
35.	Number of Degrees and Certificates	27	17	18	
36.	Number of Degrees and Certificates Native Hawaiian	6	2	4	
37.	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM	
38.	Number of Pell Recipients[1]	13	8	3	
39.	Number of Transfers to UH 4-yr	0	0	1	

*** Used in Rubric to determine Health Indicator**

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Glossary/Rubric