

**ANNUAL**  
REPORT OF PROGRAM DATA

**2022**

UNIVERSITY of HAWAII'I  
**KAUA'I**  
COMMUNITY COLLEGE



**AUTOMOTIVE TECHNOLOGY**

## 1. Program or Unit Description

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### Program or Unit Mission or Purpose Statement

The Automotive Technology (AMT) program at Kaua'i CC provides open access, post-secondary education to qualified students. Students and technicians of the auto repair industry develop and massage their minds to think critically as a necessity of the diagnosis, repair, and maintenance of today's hi-tech vehicles.

The target student or service population include: High school graduates; traditional and non-traditional students; and adults seeking a career change returning to college as well as upskill/training on new and evolving technologies.

## 2. Analysis of the Program/Unit

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### Automotive Technology Annual Program Review Data:

<https://uhcc.hawaii.edu/varpd/index.php?y=2022&c=KAU&t=CTE&p=2597>

The Overall Program Health is **Healthy**.

The Health (Overall Program Healthy) has remained **HEALTHY** from 2016-2022. Both the Demand and Efficiency indicators remain Healthy throughout those years as the **EFFECTIVENESS** indicator improved to **HEALTHY** from Progressing in 2021-2022, and 2020-2021.

### DEMAND INDICATOR

The Overall Program Health Demand Indicator has a **HEALTHY** rating. The number of New and Replacement Positions for the State and County has remained stable and strong. Private sector DEMAND continues to climb as repair facilities continually request program graduates and current program students to fill vacant positions. There was merely a slight decline of one position in the State and County numbers. Fall Full-Time majors have demonstrated a substantial increase from 51% in 2020/21 to 72% in 2021/22 improving near the 2019/20 74%. The Fall Part-Time count decreased to 28% as more students participated full-time. This shift may be a result of students overcoming the effects of the pandemic and finding the need to resume full-time status. Similarly 56% Spring Full-time enrollment in 2020/21 increased to 90% in 2021/22. Following the same trend with the Spring Part-time enrollment, numbers decreased from 44% in 2020/21 to 10% in 2021/22 maintaining an overall HEALTHY rating.

### EFFICIENCY INDICATOR

The Overall Program Health Efficiency Indicator has a **HEALTHY** rating. The average class size of 10 with a class limit of 14 has remained consistent over the past x years with a fill rate increasing from 69.2% in 2020/21 to 70.6% in 2021/22. Majors to FTE BOR Appointed Faculty trended with a slight decrease from 18 in 2020/21 to 16 in 2021/22.

### EFFECTIVENESS INDICATOR

The Overall Program Health Effectiveness Indicator improved from Progressing to **HEALTHY**. The Successful Completion rate in 2019/20 at 89% improved to 92% in 2020/21, and 91% in 2021/22, and the Fall to Spring Persistence remains relatively high at 81% and has increase from 43% in 2020/21 to 46% in 2021/22 Fall to Fall Persistence.

The Unduplicated Degrees/Certificates Awarded improved from 14 in 2020/21 to 23 in 2021/22. Certificates of Achievements increased from 33 in 2020/21 to 40 in 2021/22 along with Other Certificates increasing from 24 in 2020/21 to 55 in 2021/22.

### Perkins Core Indicators

1P1 Postsecondary Placement Goal of 33, has been **MET** and surpassed at 81.82.

2P1 Earned Recognized Credential Goal of 33, also **MET** and surpassed at 84.

3P1 Nontraditional Program Concentration data is not available at this time. However female students in a male dominated program has always been very low for our program and this year is the first time that we have five female students enrolled in the program which is a huge success in our efforts to promote our program to nontraditional students. Continual outreach with our Trades Career Track Coordinator and female student peers will be utilized for ongoing recruitment efforts.

The last CPR (Comprehensive Program Review) for the AMT program was successfully completed in Spring 2018. The AMT program is externally accredited by the National Automotive Technician Education Foundation (NATEF). Automotive Programs certified by NATEF go through a recertification process every five years. The process includes a very comprehensive self-evaluation and on-site evaluation by a NATEF Evaluation team. The AMT program recently completed Mid-Term Compliance Review in April 2021 and completed the Self-Evaluation for recertification this past October 2022 with the NATEF Team scheduled to visit the campus in Spring 2023. NATEF is a branch of the Automotive Service Excellence (ASE) and has changed its name to ASE Education Foundation. To remain compliant with ASE Education Foundation and industry standards, aged/inoperable equipment were identified during the self-evaluation. Equipment (battery reconditioning diagnostic unit; on-car brake lathe; air conditioning recovery/recycling/recharge unit; diagnostic scan tool; and shop air compressor) were needed and recently purchased. Additional equipment and repairs were identified in the recent self-evaluation as aged wheel alignment equipment started to break down and ventilation systems for the paint booth also failed. To ensure students meet the required training in accordance with ASE Education Foundation tasks, replacement equipment and repairs must be completed.

Hawaii and the rest of the world are committed to the Clean Energy Initiative to have 100% Clean Transportation by 2045. The Kauai Community College Automotive Technology program is the only program in the UHCC system that trains on Hybrid and Electric vehicle technology. The program must keep pace in preparing the next generation of technicians for these new and evolving technologies. In order to remain compliant in this new technology for Electric vehicles with

Advanced Driver Assist Systems (ADAS) and driverless autopilot controls, newer vehicles will be needed to train students, along with new ADAS calibration equipment. Having these new vehicles and equipment will ensure the program continues setting trail blazing standards for the other automotive programs to follow. However, vehicles that were specified in the previous Perkins grant have not yet been purchased due to a shortage in high voltage battery supplies but alternative electric vehicles are being considered to be purchased.

The Automotive Technology Program also participates in the ASE Entry Level Certification testing for students graduating in the program. 100 % of the students passed all ten of the ASE exams with an average passing score for all exams at 74% for all students. This test was designed to evaluate the Effectiveness of post-secondary Automotive Technology Programs across the nation. Kauai CC Automotive Technology Program has been participating in this ASE sponsored voluntary testing for over 20 years and is the only Automotive Technology Program in the UHCC system to participate. Kauai CC automotive technology students have tested at the top 20 percentile of students across the nation (a highly positive reflection of the Automotive Technology Program at Kauai CC).

### 3. Program Student Learning Outcomes or Unit/Service Outcomes

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- a) List of the Program Student Learning Outcomes or Unit/Service Outcomes
- b) Program or Unit/Service Outcomes that have been assessed in the year of this Annual Review.
- c) Assessment Results.
- d) Changes that have been made as a result of the assessment results.

<b>PSLO</b>	<b>Assessed During this APRU Cycle (Y or N)</b>	<b>Findings</b>	<b>Improvements Implemented</b>	<b>Next Assessment Date</b>
500+ ASE tasks	Yes	Students' testing at 70+ percentile	N/A	Annually
PSLO 1 Demonstrate technical proficiency in entry-level skills for employment in the automotive service field or related areas.	Yes	92% Technical skills attained in Student ASE Certifications	Graduate follow up with job placements in related field above 90%	Annually

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<p>PSLO 2 Apply the theory behind automotive procedures and use critical thinking when performing service, maintenance, diagnostics, and repair of all major automotive systems.</p>	<p>Yes</p>	<p>92% Successful completion "C" or higher</p>	<p>N/A</p>	<p>Annually</p>
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<p>PSLO 3 Comply with personal and environmental safety practices in accordance with applicable safety and environmental regulations.</p>	<p>Yes</p>	<p>100% Compliance</p>	<p>N/A</p>	<p>Annually</p>
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<p>PSLO 4 Identify and use appropriate tools, testing, and measuring equipment required to accomplish each task established by the National Automotive Technicians Education Foundation (NATEF).</p>	<p>Yes</p>	<p>100% Technical skills attained</p>	<p>N/A</p>	<p>Annually</p>
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PSLO 5 Locate references, training information and manufacturer's procedures from industry resources using the appropriate technology and perform tasks in accordance with their research.	Yes	100% Technical skills attained	N/A	Annually
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PSLO 6 Perform all diagnostic and repair tasks in accordance with manufacturer's recommended procedures as published.	Yes	100% Technical skills attained	N/A	Annually
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PSLO 7 Communicate effectively both orally and in writing.	Yes	92% Successful completion "C" or higher	Established summer ENG 106 course with embedded tutor and free tuition for students utilizing grant funds	Annually
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#### 4. Action Plan

Action Plan	Anticipated Outcome	Actual Outcome
<b>Maintain ASE Education Foundation standards and prepare for 5 year recertification On-Site Evaluation.</b>	ASE Education Foundation standards maintained annually.	Remain compliant

\*The action plan may be amended based on new initiatives, updated data, or unforeseen external factors.

## 5. Resource Implications

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The Automotive Technology program is requesting resources to maintain ASE Education Foundation national accreditation. ASE Standard 8.2 - Quantity and Quality states *The tools and equipment used in the training program should reflect the program goals and performance objectives. Sufficient tools and equipment should be available for the training offered. The tools and equipment should meet industry quality standards.* Aged and broken equipment must be replaced in order to properly train students at industry standards. A wheel alignment machine over eight years old and the accompanying alignment rack over 29 years old are both inoperable and need to be replaced.

Health and Safety concerns must be addressed whereby the college and program ensures both the proper ventilation and operation of the paint booth located in the Auto Body facility. The pre-existing inlet ventilation system to the paint booth that provides balanced air circulation was disassembled. The need for disassembly arose due to a more imminent safety hazard associated with the potential of this unit for collapsing (structurally rusted and leaning, highly positioned equipment above the roofline) which could have led to serious injuries. Without the inlet air make-up system in place, the paint booth has unbalanced air circulation leading to improper ventilation and safety concerns. Air moving device failures must be fixed before the paint spray booth can be put into operation mode again. There is no temporary fix to have the paint booth in an emergency status. Forcing or bypassing safety protective devices for air moving devices can lead to serious health hazards, injuries or even death.

Funds needed for:

Wheel alignment machine and alignment rack – \$83,812 (Perkins)

Paint Booth Recirculation Air Make-up System – \$30,000

Construction and Installation of Air Make-Up System – Potentially \$300,000? Will need a contractor's estimates.

I am NOT requesting additional resources for my program/unit.

## 6. Optional: Edits to Occupation List for Instructional Programs

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Review the Standard Occupational Classification (SOC) codes listed for your Instructional Program and verify that the occupations listed align with the program learning outcomes. Program graduates should be prepared to enter the occupations listed upon program completion. Indicate in this section if the program is requesting removal or additions to the occupation list.

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Program: Enter Program or Unit Name

**I am requesting changes to the SOC codes/occupations listed for my program/unit.**