

# AUTOMOTIVE TECHNOLOGY

ANNUAL  
REPORT OF PROGRAM DATA  
2023



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



# 2023 Annual Report of Program Data

## Automotive Technology

### 1. Program or Unit Mission

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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 Automotive Technology program is a competency-based program designed following standards specified by the Automotive Service Excellence (ASE) Education Foundation. The competencies the student is expected to achieve in the program are based on the task described by ASE Education Foundation. The goals of the program are to prepare students with the skills and competencies necessary for a successful career as an automotive technician, to instill in the student the work habits and attitude necessary to work in a highly competitive field, and to provide the student with the basic skills necessary to become a lifelong learner in order to keep abreast of the latest technological changes in the automobile.

Kauai Community College's mission is a kahua that inspires, engages, and empowers learners and educators to enrich our community and our world. The Automotive Technology program is in direct alignment with the campus mission being engaged with students and providing the necessary skills to become a lifelong learner.

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

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The Automotive Technology program maintains national accreditation standards following the ASE Education Foundation standards. A total of four hundred forty three (443) tasks are covered over the two year training period within the nine technical areas of ASE. These technical area are presented in specific courses within the training program to include: AMT 100 Intro to Automotive; AMT 141 Electrical I and AMT 241 Electrical II; AMT 152 Brakes; AMT 154 Suspension & Steering; AMT 129 Engine Repair; AMT 145 Manual Drive Train & Axles; AMT 149 Automatic Trans/Transaxles; AMT 144 Heating and AC; and AMT 240 Fuel/Emissions, AMT 242 Engine Performance I, AMT 244 Engine Performance II, AMT 260 Diagnostic and Repair.

Program Learning Outcomes are based on the competencies of completing those ASE tasks. **PSLO 1** Demonstrate technical proficiency in entry-level skills for employment in the automotive service field or related areas. **PSLO 2** Apply the theory behind automotive procedures and use critical thinking when performing service, maintenance, diagnostics, and repair of all major automotive systems. **PSLO 3** Comply with personal and environmental safety practices in accordance with applicable safety and environmental regulations. **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). **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. **PSLO 6** Perform all diagnostic and repair tasks in accordance with manufacturer's recommended procedures as published. **PSLO 7** Communicate effectively both orally and in writing.

All learning outcomes are assessed annually to maintain national accreditation. Alignment of courses with each PSLO along with the benchmarks are: PSLO 1 AMT 260-End of Program ASE Student Certification Pass Rate at 90%, actual at 91%; PSLO 2 AMT 129-90% Successful Completion of "C" or better, actual at 87%; PSLO 3 AMT 100-90% Successful Completion of "C" or better with 100% Compliance, actual at 100%; PSLO 4 AMT 129-90% Technical Skills attained, actual at 100%; PSLO 5 AMT 141-90% Technical Skills attained, actual at 100%; PSLO 6 AMT 244-90% Technical Skills attained, actual at 100%; PSLO 7 AMT 260-90% Successful Completion of "C" or higher, actual at 100%.

No changes are planned on evaluating PSLOs as benchmarks were met and ASE compliance determines areas to be addressed as applicable.

### **3. Analysis of the Program/Unit**

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Automotive Technology ARPD link:

<https://uhcc.hawaii.edu/varpd/index.php?y=2023&c=KAU&t=CTE&p=2831>

#### **Demand**

Program Demand remains strong with relatively consistent data for New and Replacement positions for the County with only a slight decline from 34 to 33 over the past year. Although those numbers representing new and replacement numbers seem to be low, it is high for our island community and our program cannot keep up with the demand of industry needs for vacancies. 100% of our graduates are hired and at least 50% of the 2<sup>nd</sup> year class is currently employed in the industry. The number of majors in the program remains constant at 33 and is the highest amongst the Trades programs.

#### **Efficiency**

Efficiency indicators also remain strong as it displayed an increase in Fill rate from 70.6% to 79.9% along with a significant drop in Low enrolled classes from 12 to 4 classes.

#### **Effectiveness**

Effectiveness indicators displayed increases in Successful Completion of C or higher from 91% to 94% over the year, a slight drop in Persistence Fall to Fall from 81% to 77%, however Persistence Fall to Spring increased from 46% to 57%. The greatest improvements were made with Degrees earned as majority of students normally pursue earning only a certificate. This past year 6 Degrees were awarded increasing from 1 in the previous year along with 25 Unduplicated Degrees/Certificates.

#### **Perkins Core Indicators**

1P1 – Postsecondary Placement Goal 33, Actual surpassed at 91

2P1 – Earned Recognized Credential Goal 34, Actual surpassed at 67

3P1 – Nontraditional Program Concentration Goal 11, Actual surpassed at 17

Overall the program remains Healthy and has recently acquired reaffirmation of its national certification through ASE Education Foundation in May 2023. Maintaining and following national standards ensures students acquire essential training to be successful in the automotive industry. The Trades Career Track Coordinator has also played a vital role in promoting the program at intermediate and high school events, and working with industry partners to introduce internship opportunities. Various program strategies to grow the program and bring awareness to the community over the year has helped our program increase in numbers both with enrollment, job placements, and most notable with nontraditional participation.

#### 4. Action Plan

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Action Plan	Anticipated Outcome	Actual Outcome
<b>Maintain ASE Education Foundation standards.</b>	ASE Education Foundation standards maintained annually.	Remain compliant
<b>Prepare for Mid-Term Compliance Review</b>	Document and track student graduates; maintain instruction, facilities, and equipment at industry standards.	Advisory Board evaluation twice a year to remain compliant. Procure necessary tools and equipment to remain compliant.
<b>Acquire industry training</b>	Maintain minimum of 20 hours of industry training for all instructors.	Implement training and industry trends into curriculum

#### 5. Resource Implications

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Funds requested last year were approved but not spent due to the inability to complete the procurement process. Our campus is in desperate need of a **Procurement Person** to make essential purchases of high cost items for the programs.

The program is still in need of and requesting resources to maintain ASE Education Foundation national accreditation. Aged and broken equipment must be replaced in order to properly train students at industry standards. Both wheel alignment machines are over 8 years old and the alignment rack is over 29 years old and is inoperable.

Health and Safety concerns must be addressed with proper ventilation and operation of the paint booth. The existing inlet ventilation system was disassembled due to safety hazards of collapsing that would've 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.

Professional Development funds for travel and training is also needed for faculty to remain compliant with industry standards. During the past several years due to COVID, faculty has not traveled to acquire the necessary face to face industry training and have relied on webinar training which is not as effective. We are requesting to attend the next upcoming North American Council of Automotive Teachers seminar to collaborate with and train with other educators.

Facilities are in dire need of regular maintenance as ceiling tiles are falling and have not been replaced, AC ductwork are not regularly cleaned and have signs of mold both in offices and classrooms on ceiling tiles. This has been seen in several other Trades classrooms as well, which is a major Health concern.

The Trades Career Track Coordinator is responsible for providing support to the CTE programs. Develops and incorporate strategies to recruit traditional and non-traditional students by coordinating and meeting with local DOE and Charter school administrators, counselors and staff to advocate CTE programs. Coordinates and work collaboratively with CTE faculty, counseling, marketing department and webmaster on program outreach in development of brochures, informational handouts, and program website.

Coordinates and meet with local businesses in the community to advocate programs for recruitment and job placement; Manages and develops new community partnerships and strengthen existing relationships for employment training and job placement/apprenticeship opportunities for current and future students; Manage and track CTE student recruitment, graduates, and job placement working collaboratively with campus Institutional Researcher; Tracks Trades programs AAS/AS degree graduation rates, CTE course and General Education course completions; Coordinate workshops and tutoring sessions to improve persistence and graduation rates and conduct employer needs assessment and follow-up as needed. The Coordinator is currently funded by Perkins funds which will end in June 2024 and will need to be funded to provide ongoing support to the CTE programs.

Funds needed for:

CTE Pathways Coordinator (Formally Trades Career Track Coordinator) - \$115,000 including fringe and student help (Perkins)

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.

Professional Development travel and training - \$6000 (Perkins or Ed White)

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