College Mission

At Leeward Community College, we work together to nurture and inspire all students. We help them attain their goals through high-quality liberal arts and career and technical education. We foster students to become responsible global citizens locally, nationally, and internationally. We advance the educational goals of all students with a special commitment to Native Hawaiians.

Program or Unit Mission

The Automotive Technology (AMT) Program is a two-year program and is accredited at the Master Level by the Automotive Service Excellence Education Foundation (ASEEF). The mission of the program is: (1) to prepare students with the skills and competencies necessary for a successful career as an automotive technician; (2) to instill in students the work habits and attitude to work in a highly competitive field; and (3) to provide the students with the basic skills necessary to become lifelong learners in order to keep abreast of the latest technological changes in the automotive field.
Part I. Executive Summary of Program or Unit Status

The purpose of this report is to analyze the past five years of the AMT program’s performance. The program is consistent in terms of student enrollment, persistence, and graduation rates. The automotive industry is a rapidly evolving techno-mechanical industry and the AMT program must evolve with it. In order to increase student certificates and degrees earned, the AMT program would need to be provided with the necessary resources (i.e., instructors, equipment, facilities, etc.) to increase the number of students and expand our course offerings.

There were no recommendations to our previous CRE (2016) and ARPDs (2016-2021). As far as the past CRE (2016) Action Plan, the AMT program was able to secure funding for the Waste Oil Tank and Compressor. The College also provided our instructional faculty with some training on Advanced Technologies, but further training, equipment, tooling, and vehicles are still needed.

The AMT program supports the College’s vision, mission, core values, “Wildly Important Goal” (keeping the students we have), and Strategic Plan by being committed to the success of our students and support of our industry.

Part II. Program or Unit Description

Leeward Community College began offering the AMT Program soon after the campus opened in 1970. Initially housed in the basement and first floor of the DA building, the program moved to its present location in the Engineering Technology buildings in 1980. To provide students the ability to enroll in all classes required for their desired automotive degree or certificate over four semesters, the program is structured in a modular format, with guided paths and a specific sequence of courses taken. This enables all students to enroll in the classes needed without the worry of courses closing because of out of sequence or random registrations.

In the spring of 2000, the AMT Program attained the prestigious Master Level certification from the National Automotive Technical Education Foundation (NATEF). This national organization serves to provide accreditation to deserving programs that successfully meet their very stringent standards regarding the quality of education provided to students; program persistence and graduation rates; employability of students and graduates; the adequacy of the classroom, dry lab and shop facilities; tools and equipment availability; instructor qualifications, level of currency and professional development; adequacy of program resources; linkage with community businesses through the establishment of advisory committees meeting at least twice annually, etc., amongst other strict requirements. The accreditation period is for five
years with a mid-term review done at 30 months. The well-known certifying organization, the National Institute for Automotive Service Excellence (ASE), certifies the technician, individually, in several different areas of vehicle repair and related industry job competency. NATEF certifies the technical training program in three levels; Light Repair and Maintenance, Automotive Service Technology and Master Automotive Service Technology. The AMT Program is accredited at the Master Automotive Service Technology level, currently the highest level attainable. The requirements of instruction are very stringent with extensive lists of prioritized tasks the students must complete in each of eight repair areas corresponding with the eight main areas of ASE certification. These tasks form the basis of determining student achievement and successful learning outcomes. In 2020, NATEF has been reorganized and is known today as the Automotive Service Excellence Education Foundation (ASEEF).

The AMT Program has as a sub-program, the Ford Motor Company sponsored the Automotive Student Service Educational Training (ASSET) Program. This program trains its students in a Ford designed training process focusing on Ford vehicles, their systems and repair strategies. All students in ASSET must be sponsored and employed by a local Ford dealership and upon graduation, are obligated to continue employment at that dealership for a period of two years.

All courses in both the regular AMT Program and the Ford ASSET Program are delivered via in-person, face-to-face instructions, 5 hours daily, Mondays through Fridays. Traditional classroom sessions are followed by lab or shop activities daily, providing immediate practice and emphasis of concepts and theories learned in the classroom earlier that day. There were some adjustments made to instructional modalities during the COVID-19 periods of Spring and Fall 2020. Instructors adopted a modified hybrid form of classroom delivery when possible, but all courses have since returned to the usual in-person format.

The objective of ASEEF and the AMT Program is to produce employable entry level automotive technicians. A time span of two years is insufficient to realistically expect a graduate to be a fully competent, independently working technician. The industry is understanding of this and also desires to mold newly hired technicians to suit their business model. Therefore, graduates are usually hired as beginner technicians or other entry level positions to evaluate their abilities and develop a plan of progression.

The target population is comprised of students who are working toward a career position as a technician in the automotive repair industry. However, not all AMT students are suited for career employment as a repair technician in such a competitive environment and industry. Program instructors encourage these students toward continuation and completion of degree goals as the skills and knowledge acquired in the
AMT Program can be advantageously applied to other career positions in the industry. For example, a student with exemplary communicative skills might be successful as a Service Advisor or Service Writer who is the person who serves as the representative of the business to the customer and must explain the technician’s diagnosis and recommendations in a manner the customer can understand. Exemplary work performance may lead to a progression to Service Manager or other industry related managerial positions. Another example would be the student who enjoys cars and how they work, but lacks the dexterity in the hands to be proficient. This student may find career employment as a Parts Salesperson; the person who connects the correct parts needed with the technician or retail consumer. Knowledge of vehicle systems and repair procedures are skills that separate the average Parts Salesperson from the one who is trusted and always requested for. A lucrative career can be realized for the truly accurate Parts Salesperson with progression to Journeyman level or management.

Other career possibilities exist, such as vehicle customization, competitive racing, tool sales or other service industries that require dexterity and mechanical aptitude such as home appliance repair. Many other options exist for the AMT graduate and they are encouraged to find their “fit” even if it exists outside the automotive repair industry.

The AMT Program’s student organization, the Mana Automotive Club, actively connects the Program to the campus and community. They perform semi-annual vehicle inspections for campus staff, explaining vehicle systems and some simple maintenance tips in addition to checking the vehicle’s tires, brakes and other important safety items. They involve themselves with the automotive community by organizing two automotive car shows held in the campus’ main parking lots; the 2017 and 2018 Holiday Show and Shine car show events which were also fundraisers for Toys for Tots and the Make a Wish Foundation. In coordination with local car clubs and radio stations, these events were hugely successful and also provided the Program opportunity to do guided facility tours which were popular as well. The Mana Club also found their way into the Guinness Book of World Records. A successful club car wash fundraiser held in July of 2016 proved to be a rehearsal for a World Record event held in Waipahu three years later. NAPA Auto Parts and the Mana Automotive Club teamed with other NAPA Auto Parts stores nationwide to coordinate the world’s largest car wash which was certified as such by the Guinness Book of World Records. Collectively, 9,179 cars were washed in a four-hour period by all the participants nationwide, breaking the old record of 6,277 held by an Australian organization, Repco.

The AMT Program has established DOE Early College partnerships with Campbell, Leilehua, and Castle High Schools teaching the AMT 100 course. Campbell ran one section in the Fall 2019 semester and Campbell and Leilehua both did a section each in the Spring of 2021. However, current work rules require the DOE teachers to conduct
these classes after their normal work day ends which creates a conflict for interested students unable to participate because of commitments to other activities such as athletics or school clubs. This resulted in low enrollment for these first attempts, however, effective communication and recruitment efforts have resulted in improved enrollment in Spring 2022 offerings with 22 students registered to participate in AMT 100 classes at Leilehua and Castle High Schools. Castle is also looking into offering the AMT requirements for ENG and MATH in the future providing an easier transition into our Program for their graduates.

Under the direction of CTE Dean Ron Umehira, the AMT Programs of Leeward, Maui College and Kauai CC were successful in accomplishing a Course Articulation Agreement in September 2018 and will be in effect until December 2024, subject to review in the year prior. The agreement became effective in Fall 2019 establishing commonalities in course number, course title, course abbreviation, prerequisites, schedule type, credit hours, contact hours, workload (teaching equivalencies), course description, and course learning outcomes. This is an unprecedented accomplishment and satisfies a directive set forth by then Vice President of Community Colleges, Dr. John Morton.

**Staff**

Professor Eric Pang is a veteran of over thirty years at Leeward CC. Eric is Master certified by ASE and has a long history with Lexus and with Chrysler as a dealership technician and having won the very highly acclaimed national title of “Top Technician” several times. He has served as AMT Program Coordinator and leader of the last NATEF reaccreditation process. He has taught all the AMT courses offered, and is currently the instructor of Engine Repair and Steering and Suspension. Eric also has been called upon by the MATH Department to teach the Quantitative Methods classes for the AMT students. His wealth of experience and wisdom in the functions of the Program and the College are called upon frequently by other staff members.

Assistant Professor Nolan Miyahara brings over twenty years of automotive repair experience via employment at both independent and dealership repair businesses such as the Cutter Family and JN Mazda. Attaining Master and Advanced Level ASE, Chrysler, Toyota, and GM Hybrid certifications, he comes to Leeward as a Lead Technician from Servco Toyota Chevrolet and is the lead trainer and site coordinator for the Raytheon General Motors satellite training center here at Leeward. Nolan currently teaches the Automotive Heating, Ventilation and Air Conditioning course and also the Program’s capstone Engine Performance course as well as serving as a Program Co-coordinator.
Instructor Milton Ayakawa first came to Leeward CC for a three-year period from 1997 as instructor, teaching the fourth semester. He left Leeward for a few years, then returned as an APT, Automotive Lab Manager in 2004 and also served as a lecturer in the absence of the other instructors. Milton is Master and Advanced Level ASE certified, and has over eighteen years of independent and Toyota dealership repair experience, having won the prestigious title of “Automotive Service Champion” and membership to the Toyota Automotive Service Champion’s Society. Milton has taught all the AMT courses and is currently teaching the third semester students in the classes of Manual Transmissions and Drivetrains, Automatic Transmissions and Electrical and Electronic Systems II. He also serves as an industry trainer for General Motors. Milton is serving as the AMT Program Coordinator, beginning Fall 2016 and plans to secede these duties after Spring 2022.

Instructor Mark Lacasandile, Master and Advanced Level certified by ASE and Toyota has over 22 years of independent and dealership repair experience coming to Leeward as a Lead Technician from Servco Toyota and Chevrolet. Mark also serves as the Mana Automotive Club advisor. Mark also coordinates the Specialty Equipment Market Association (SEMA) Student Scholarship Program which provides numerous scholarship opportunities to our students as well as attendance to the annual SEMA Automotive Show. Mark will also serve as the coordinator of the Mopar CAP Local Program when the agreement is finalized, which provides dealership level training modules and certifications to all our students.

Instructor Jeff Eligio is the Ford ASSET Instructor, overseeing the ASSET program and its relationships with the Hawai‘i Ford dealers and Ford Motor Company. A former Lead Technician, he is Master and Advanced Level certified by ASE and Ford with over 28 years of automotive independent and dealership repair experience and also serves as the local Ford in-service technical trainer for dealership technicians.

Automotive Lab Manager Kelton Taniguchi brings his eleven years of national chain store and JN Chevrolet dealership service experience to our Program. He is Master and Advanced Level ASE certified and his studies in Business Administration provides the Automotive Program a different viewpoint of the automotive industry which is valuable in understanding industry trends.
Part III. Analysis of Program or Unit Data

Overall, the AMT Program has been doing very well. The program health, demand, and efficiency have remained “healthy” over the past five years. Program effectiveness has moved from “progressing” over the past four years, to “healthy” in 2020-2021. Although not reflected in the UHCC System data, our records indicate our intake of students in first semester courses has been at a maximum of 100% each semester. Fall to spring persistence rates remained relatively stable between 74%-75%. Fall to fall persistence rates generally increased over time from 40% in 2016 to 58% in 2021-2022.

There are factors that probably impacted the number of degrees and certificates awarded:

1. Program participation numbers were high in 2016-2017 because there was an evening and afternoon program. Overload compensation were approved to staff.
2. There was a decrease in the Certificate of Competence awarded in 2017–2018 (33% drop off). After interviewing students, we found students were unaware they were qualified to receive this certificate, so they did not apply for it.
3. There was another decrease in the Certificate of Achievement awarded in 2019-2020 (30 to 13 students - 57% drop). This was likely due to students’ disruption in course progress due to the COVID-19 restrictions.
4. The fill rate of Distance Education courses went from 0% to 58% in 2020-2021 due to the modification of the AMT 193V to provide weekly meetings, remotely, instead of in-person.

Part IV.A. Analysis of Program or Unit Measurable Goals, Program Level Outcomes (PLOs) and Student Learning Outcomes (SLOs)

As we do not screen our program students prior to enrollment and some may lack sufficient preparation, maturity, aptitude, and talent level required, 100 percent task completion will not be consistently attainable, however it will always be intended. Regarding the SLO and PLO soft skills, continuing students have been successful at adhering to the ASEEF guidelines.

PLO #1- Demonstrate the professional skills and knowledge required in the Automotive Industry. Students are expected to understand and properly perform basic repair procedures for typical common vehicle repairs performed by entry level technicians. Graduates have received extensive training, but still may not have the practical work experience to be considered for higher level positions. Employers also prefer to mold the technician in the practices and standards of the company. However, the basic
foundation must be sound from which to build and polish. AMT students are taught to realistically expect upward work progression.

PLO #2 - Apply safety procedures required in shop practices. Students are expected to perform all work in a manner attentive to the safety and protection of themselves, their co-workers, vehicles and their owners. Safety is always job one and is strongly emphasized to AMT students. Being a professional technician is ensuring the vehicle is safe. Being a professional technician is ensuring their work is done properly and safely, otherwise they risk the well-being of themselves, their co-workers, and the environment. Being a professional technician is awareness of financial loss to the employers if accidents occur from unsafe acts. Safety is being professional. ASEEF, our accrediting body, has a list of safety standards (soft skills) that the students need to adhere to every day while in class. Students are monitored regularly by instructors. If there are any discrepancies, instructors have a demerit system on grade points.

PLO #3 - Apply principles necessary for practical applications within the Automotive Industry. Procedures are performed in a professional manner with attention to customer satisfaction regarding quality of work performed and accuracy of repair. Professional technicians perform work on customers’ expensive property (i.e., cars) and so respect to vehicles and proper work ethics must be observed. Businesses are reliant on their customer’s satisfaction to enable a continuous relationship and repeat business. Technicians are expected to do a proper repair correctly, the first time. AMT students are driven to establish exemplary work habits as part of their professional philosophy. ASEEF, our accrediting body, provides a task list for each subject area. Students have to provide documentation and show their satisfactory completed work to instructors in daily work and practical examinations.

The most recent courses assessed in the AMT Program provide an indication of how well our students are attaining course SLOs. Below are the percentage of students who attained their course SLOs in 2020-2021:

- AMT145 – 88% of students successfully completed all SLOs
- AMT150 – 91% of students successfully completed all SLOs
- AMT152 – 93.3% of students successfully completed all SLOs
- AMT162 – 93.3% of students successfully completed all SLOs
- AMT164 – 90% of students successfully completed all SLOs
- AMT93D – 87.5% of students successfully completed all SLOs
- AMT241 – 100% of students successfully completed all SLOs

As evident, a high majority of AMT students successfully completed all course SLOs.
Part IV.B. Curriculum Revision and Review (For Instructional Programs)

The AMT Program and all courses underwent a 5-year Curriculum Review in the Fall of 2017. The only changes made were to the modification of Lecture and Lab Teaching Equivalencies (TEs) to the standard Shop category. In the Fall of 2018, per our articulation agreement with the University of Hawai‘i community colleges, curriculum modifications to Program Degree and Certificate requirements as well as all courses were passed by the College’s Curriculum Committee, the Faculty Senate, the Vice Chancellor of Academic Affairs, and final approval from the University of Hawai‘i’s Systems Office. Modifications to courses were made to accommodate the new course numbering system per the articulation agreement and the new course numbers also required modifications to the Associates in Applied Science degree, the Certificate of Achievement and the Certificate of Competence. Also, AMT 152 advanced brakes and AMT 164 advanced suspension were created to maintain credit and contact hours for A4/A5 ASE areas. These changes became effective Fall 2019. In the Fall of 2019, AMT93, Cooperative Education was revised to a variable credit AMT193V to better allow for varying term lengths to better fit the school calendar.

Part V. Survey Results

Student and graduate surveys were administered by the Job Prep Services Department and by the Division’s Educational Specialist. The data has not been disseminated by the Program and the Educational Specialist’s data is no longer available.

Informal student surveys regarding student employment had been taken in the Spring semesters of 2017, 2018 and 2019. Second year AMT student employment in industry related businesses had initially averaged approximately 70 percent but had declined dramatically over a one-year period in 2019 to 42 percent. Among the most compelling reasons cited was the lack of competitive pay in industry related jobs compared to pizza delivery, retail, and others.

Part VI. Overview Analysis of Program or Unit

While persistence rates remain stable, the AMT Program can increase the number of degrees and certificates by increasing our intake of students. An increase in staff would allow the AMT Program to provide additional sections. As seen in 2016-2017, running evening and afternoon classes increased program participation numbers. Modernized facilities and equipment would also help the AMT Program to expand our capacity.
Furthermore, aggressive follow up with students on applying for certificates is necessary. After interviewing students, we found students were unaware they were qualified to receive a certificate, so they did not apply for it.

Part VII. Action Plan

To increase intake of students (and thus the number of Certificates and Degrees completed), the AMT Program would like to:

- Strengthen support staff (e.g., Education Specialist) to follow up with students on applying for certificates and/or other student services.
- Increase the number of neighbor island Ford ASSET students by partnering with neighbor island dealerships and securing funding to provide housing for students.
- Expand current facilities and increase the number of full-time faculty to accommodate more classes (e.g., Hybrid and Electric vehicle training and Advanced Driver Assistance Systems).

Part VII. Resource and Budget Implications

To increase intake of students (and thus the number of Certificates and Degrees completed), the AMT Program requires:

- More full-time instructional positions (1-2)
- A full-time Education Specialist in the Professional Arts & Technology Division
- Improved & expanded facilities
- Additional up-to-date equipment & vehicles for new classes
- Dormitory for neighbor island students to participate in the Ford ASSET Program