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Date: March 9, 2020

To: Cathy Sandeen, Chancellor

From: John Stalvey, Interim Provost

Cc: Denise Runge, Dean, Community & Technical College
Darrin Marshall, Director, Transportation & Power Division
Kelly Smith, Assistant Professor, Automotive Technology
David Palecek, Assistant Professor, Automotive Technology
Susan Kalina, Vice Provost for Academic Affairs
Claudia Lampman, Vice Provost for Student Success

Re: **AY20 Expedited Program Review Findings – Automotive Technology UC/AAS**

I have reviewed the dean's findings and the completed Expedited Program Review Template for the Automotive Technology UC/AAS. The Provost's Office did not receive an Optional Program Response Form from the program.

Recommendations

My recommendation is to accept the decision and recommendations of the dean. The next Program Review will be part of the regular cyclical review.

Decision

Recommend Continuation

UAA Community & Technical College
UNIVERSITY of ALASKA ANCHORAGE

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Date: February 2, 2020

To: John Stalvey, Interim Provost

From: Denise Runge, Dean

Re: AY20 Expedited Program Review Findings

Program/s in this review: Automotive Technology (UC, AAS)

Specialized accrediting agency (if applicable): ASE Education Foundation

Campuses where the program is delivered: Anchorage

Members of the program review committee:

- Darrin Marshall, Director
- Kelly Smith, Assistant Professor
- David Palacek, Assistant Professor

Centrality of Program Mission and Supporting Role The Automotive Technology program is very well-aligned with the mission of UAA and of the CTC. The program meets a clear workforce need, preparing individuals who obtain immediate employment with automotive dealerships and repair shops, fleet maintenance, and related positions. In Alaska, mechanics earn an average salary of over $50,000 per year, and job openings are plentiful. The program enjoys strong external partnership support, serving the needs of industry and of its enrolled students. A number of its courses are shared with the Diesel Technology programs.

Program Demand (including service to other programs), Efficiency, and Productivity
Demand for the program has remained steady during the review period despite general enrollment declines at UAA, and the program has taken steps to become increasingly efficient. The programs had an average of 55 majors per year, with 59 during the 2019 review year. Due to the nature of the lab where much of the instruction takes place, course capacities are limited to 18, and in a few cases even fewer, students.

Most sections are close to capacity, with an average class size of 13.8. Despite its small class sizes, the program has managed to contain instructional costs. For 2019, the student credit hours per full time equivalent faculty member, or SCH/FTEF was 339.8. Its tuition revenue per credit hour is $211.6 and its cost per credit hour is $195.5, for a ratio of 1.08, indicating the program is covering its instructional costs. Overall the program is experiencing constrained capacity while keeping its costs relatively low.

Program Quality, Improvement and Student Success The program has been recognized by its accreditor, by national program rankings, and by industry for its quality. The Automotive Technology program is accredited by the Automotive Service Excellence, or ASE Education Foundation. For several years it has been listed on the “best schools” rankings as a top-20 program in the U.S. It’s partnerships with several major automotive manufacturers are further evidence of quality, as those partnerships require high levels of faculty excellence and extensive ongoing professional development. Recent improvement efforts, especially those centered around student success, have the potential to positively impact the program. The AAS program currently retains more than fifty percent of its students after the first year, slightly higher than the university-wide associate’s degree programs rate. For both the AAS and certificate program, however, students tend to take much longer than two years to complete their degrees. With the addition of the division’s Student Success Advisor and more active mentoring by faculty, the program is working to improve both of these metrics.

Program Duplication / Distinctiveness Duplication: both UAS and UAF offer certificate programs. Automotive technician programs are, by their nature, characterized by relatively small numbers of students. Employment for graduates of these programs is primarily local; relatively few students would move to another area to be trained as a technician. For both of these reasons, the existence of multiple programs in the state is justified and appropriate to serve the needs of industry. Distinctiveness: only the UAA program is accredited, and it is the only program to hold the extensive formal partnership agreements with several manufacturers.

Commendations and Recommendations *Commendations:* The program is commended for incorporating additional industry partnerships in recent years, as this greatly expands the opportunities for its graduates. The program is further commended for its efforts at recruitment and retention. *Recommendations:* The program should continue to explore alternative modes of delivering its programs in order to further enhance productivity and efficiency.

Decision *Continuation:* Program is successfully serving its students and meeting its mission and goals. No immediate changes necessary, other than regular, ongoing program improvements.

Submission date: February 10, 2020

Program/s in this review: Automotive Technology UC & AAS

Specialized accrediting agency (if applicable): ASE Education Foundation

Campuses where the program is delivered: Anchorage

Members of the program review committee:

- **Darrin Marshall, Director, Anchorage campus**
- **Kelly Smith, Assistant Professor, Anchorage campus**
- **David Palecek, Assistant Professor, Anchorage campus**

1. Centrality of Program Mission and Supporting Role (700 words or less)

The Automotive Technology program is housed within the Transportation & Power Division at CTC. The program works closely with the Diesel Power Technology, with 5 of the core technical courses (15 credits) in common between the 2 programs.

The Automotive Technology and Diesel Power Technology programs share 5 core courses, to ensure that program resources are leveraged in the best interest of students in both programs. ADT students have the option continue on to their academic career by pursuing their Bachelor of Science in Applied Technology Leadership.

The program has developed partnerships with multiple local businesses. These local businesses take an active role in the ASE Education Foundation accreditation process for the program.

Through a partnership with General Motors, students in the GMASEP program have the opportunity to hone their skills on emerging technology vehicles components systems & tools. General Motors has donated over $300,000 in support of the Automotive Technology program; 2019 Cadillac XT4, 2019 GMC Canyon, and 2016 Corvette Z06 to name a very few. In addition to the many donations, the partnership with GM is leveraged through our role in delivering professional development courses to GM dealership technicians. This activity demonstrates the excellence of the Automotive Technology program and faculty, as professional automotive technicians from across Alaska turn to UAA for expert technical update training. In the past year, program faculty delivered 40 days of professional development training for General Motors dealership technicians, and brought in $27,000 as a result.

The MCAP partnership between the Automotive Technology program and Fiat Chrysler of America (FCA) provides students with an opportunity to earn factory-level credentials specific to the FCA group. MCAP training is embedded in the Automotive Technology program for students in the General Automotive option. In support of the MCAP program FCA has provided a 2012 Ram pickup, and a 2013 Dodge Durango to support the hands-on lab component of the curriculum. The first year full implementation, General Automotive Students earned 425 individual FCA certifications.

Subaru is the latest manufacturer to partner with UAA. In support of this partnership, Subaru has donated a 2019 Subaru Ascent valued at $44,695. Subaru supports program students by providing

access to the Subaru University, learning management system for dealership technicians as an additional option at no cost to the student or to the program. Subaru has provided the programs with Subaru diagnostic system service literature and Subaru diagnostic equipment.

In addition to the donation of vehicles and major components, our corporate partners provide access to proprietary diagnostic systems, service literature, and digital interactive training modules which provide students and faculty with an opportunity to receive factory-level training and certifications. These manufacturer specific certifications add value to the students as they transition into their career field.

The focus of the Automotive & Diesel Power Technology is workforce development for the ground transportation segment of Alaska's economy. These programs prepare students for high demand, high wage career opportunities in a rapidly growing technological environment. In keeping with accreditation standards adopted by the ASE Education Foundation, the core curriculum is designed to provide a strong technical foundation, as well as soft-skills including a portion of the communication and quantitative related GER. This combination helps prepare students to be successful as the next generation of technicians or a myriad of other related career paths within the automotive maintenance and repair industry. The program supports the UAA Core Values of Student Success and Excellence through alignment with ASE standards for Automotive Technology programs.

According to the Department of Labor and Workforce Development the 2026 projection is for a 2.7% Increase in employment demand for service technicians in the state of Alaska. This equals a need for 1800 new technicians in the next 6 years. These numbers pale in comparison to the national need and the amount of investment being made by vehicle manufactures trying to find solutions for the shortfall of technicians.

2. Program Demand (including service to other programs), Efficiency, and Productivity (7 year trend; 1400 words or less)

There is a significant deficit in the United States for qualified automotive technicians. All of our automotive manufacturer partners confirm that to us. Alaska is not immune from the shortage, and may be more negatively affected due to geography and cost of living. Every service manager on our industry advisory committees tells us that they cannot find enough technicians. Data from the UA System Career Coach shows there are 196 annual openings for Automotive Master Mechanics. The Alaska Department of Labor and Workforce Development lists 16 standard occupational classification codes that are closely related to the program, with a total of 3713 projected annual openings. On average, our automotive and diesel program has 55 students enrolled and, although not all are successful, this is still a number too small to fill Alaska's need in just the one category of automotive technician positions. We are increasing our recruiting efforts, our connections with local industry members, and our connections with automotive and manufacturers and other potential industry partners to help our enrollment numbers and student success.

We have been working on several initiatives to put our FTES/FTEF numbers on a gradual climb over the past 7 years. One initiative has been our recruiting efforts in which all of our instructors, our director, and our Student Success Coach have been to high schools, competitions, and automotive/diesel events which seems to have had an influence. We have increased the number of students in each class and reduced the number of sections that are offered. In a time where the university is losing enrollment, the enrollment in the Automotive Program has been on the increase. Our Student Success Coach has been incredibly influential in keeping classes full, increasing our graduation rates, and streamlining our processes to decrease our dropout rate. Her efforts include an increase in program advising, which we are projecting to significantly increase the

graduation rate over the next year. The automotive/diesel program is built with a team of motivated individuals and, through all of our efforts, I believe that we will continue to increase the efficiency of our program.

Graduation rates are an incredibly valuable number but I believe our graduation rates could be misread and maybe a bit misleading. Graduation rates for technical programs nationwide are typically lower. Our program mandates on the job training because work experience is essential for maximum educational benefit in the automotive and diesel fields. We have many students that are employed by the first semester and the vast majority of students are employed by the 3rd semester. Unfortunately, many of the students stop or drop out for multiple reasons. Many opt for a paycheck now, rather than finish their education. Students start our program to get a job that pays well and both of those goals are can be achieved before graduation.

The Cost per SCH has consistently been decreasing and, in 2019, is now less than the tuition revenue. This trend should continue and potentially improve as we move forward. We have increased our recruiting efforts that should drive up enrollment and we have decreased the number of sections that should increase class size.

UAA has several articulation agreements with King Tech, Wasilla High, and Palmer High automotive programs in order to guide students into our program. These agreements have been assisting with our enrollment numbers. We are also in talks to create a dual enrollment program with King Tech.

3. Program Quality, Improvement and Student Success (1500 words or less)

University of Alaska Anchorage Automotive Technology program is ranked 13th in the nation Twenty Best Schools. Their article on the ranking states in part:

"The school [University of Alaska Anchorage] is career–focused, and the courses are modeled after corporate training programs, and based on ASE certification standards." ***The 20 Best Auto Mechanic Schools, November, 2019 update.***

The Automotive Technology program at the University of Alaska Anchorage prepares students for high paying, high demand careers in the transportation repair and maintenance field. The program offers students the option of completing an Associate of Applied Science degree, or a 2-year Undergraduate Certificate. The Undergraduate Certificate core requirements are embedded in the AAS program. Five of the required core courses for the program are also required for the AAS in Diesel Power Technology, which gives both programs flexibility in scheduling to improve efficiency for both programs.

Specialized Accreditation

The UAA Automotive Technology program is accredited through the Automotive Service Excellence Education Foundation (ASE). UAA is the only Master Automotive Service Technician level in Alaska. The Automotive Technology program at UAF is a one-year certificate program, and is ASE accredited at the General Service Technician level. UAF automotive curriculum was designed in collaboration with the UAA program, and students who completed automotive technology courses can smoothly transfer to the Automotive Technology program at UAA if they wish to complete an AAS degree at UAA.

The self-review and external review analyze program alignment with ASE standards in accordance with areas deemed most important by a nation-wide advisory group made up of employers, manufacturers, educators and consumers.

When program faculty, and program advisory committee find that the program meets accreditation standards, an application package is submitted to ASE. Once ASE approves the application package, an Evaluation Team Leader (ETL) is assigned to the school and an on-site review is scheduled for a committee made up of the ETL and local industry representatives.

Following initial accreditation, the program completes a mid-term review at 2 ½ years, and a re-accreditation process with an on-site accreditation team. The UAA Automotive Technology program is due to conduct a full ASE reaccreditation during the 2020-2021 academic year.

The accreditation process, including alignment with ASE standards, ensures that program faculty and curriculum remain current and relevant to the industry needs. ASE requires every member of the faculty to achieve and maintain individual ASE certification in the area taught, and to attend a minimum of 20 hours of technical update training in the field.

Innovative Program Design

In addition to academic awards, program faculty stress industry recognized certifications and the continuing education that students will need to stay relevant as they advance throughout their careers. The most recognized industry standard is individual technician ASE certifications. These certifications are often the difference in getting an interview for employment. Although the program incentivizes students to obtain ASE certifications while in the program, we have to rely on students to self-report. Therefore it is likely that the data we have is incomplete. However, we do have documentation of 97 individual ASE certifications for our students from AY2013-AY2019.

Another industry certification that is important to many employers is EPA certification required by section 609 of the Clean Air Act for technicians who work on air conditioning systems. Since Fall 2016, students in the general automotive program have had the option to take the test for section 609 certification in place their midterm exam. Over that time, 89 students out of 92, have received section 609 certification.

When Fiat Chrysler Automobiles (FCA) approached the program to see how we might partner with them, we did not have the resources to start a dedicated program completely focused on their product. Rather than say no to the opportunity, we agreed to embed FCA online training in the program. All General Automotive students are assigned a set of online modules from the FCA learning management system. In the first full year of implementation, our students have completed 425 individual certifications. In addition to the certifications earned by the students, the online modules provide reinforcement of principles taught through classroom and lab activities. There is no cost to the program or students for access to these certification modules.

Program Student Learning Outcomes Assessment

The program uses assessment strategies designed to determine student's preparation to succeed in the automotive industry.

Success in achieving national certifications indicates progress in gaining knowledge of technical systems, choosing and properly applying diagnostic processes to determine if systems are operating within specifications, and to recommend and perform proper repair procedures.

The program utilizes faculty developed assignments to indicate sufficient progress in oral and written communications, and in quantitative skills to serve as a foundation for progression in their careers.

Faculty with responsibility for practicum supervision gather data from students and their on-site supervisor. These reports are important indicators of student achievement. Because they are collected in the context of actual industry settings, they are the most direct indication of student preparation.

Students must also demonstrate technical knowledge and critical thinking necessary for success in the automotive maintenance and repair industry.

Our analysis of these measures indicates that students are progressing toward their goals. As an outside indication that our students are important to the industry, the program was recently approached include factory training for Subaru. We are in the early phases of implementing online Subaru training modules for our students.

Student Success

All members of the faculty participate in career and student advising, however, much of the academic advising is now within the purview of the student success coach. Largely due to the activities of our student success coach, we are projecting a sharp increase in graduation rates. Faculty and staff collaborate on several student success initiatives. These include annual job fairs, tool fairs, and alumni celebration barbeques.

4. Program Duplication / Distinctiveness (300 words or less)

The UAA Automotive Technology program offers an Associates of Applied Science degree and a two-year undergraduate certificate in automotive technology. It is the only Master level ASE accredited program in Alaska. Additionally, the partnerships with General Motors, Fiat Chrysler, and Subaru cannot be duplicated in the state.

UAF houses a one year certificate automotive program. It does not equal the program at UAA but there is a huge need for automotive technicians. I believe that all efficient education to funnel students into the automotive field is valid.

5. Summary Analysis (500 words or less)

The Transportation & Power Division at UAA houses Welding & Nondestructive Testing Technology, Automotive Technology and Diesel Power Technology programs. These programs provide valuable workforce development in a high demand career fields. Enrollments are strong, and the programs enjoy strong partnerships with several vehicle and equipment manufacturers, as well as local business support. Each of the programs in the division are strong in their own right, but stronger because of inter-program cooperation and collaboration. Like much of UAA, the division has felt the budget contractions over the past 2-3 years. The division has lost staff positions, and one faculty position directly related to the Diesel Power Technology. Through these actions, the programs have remained strong through collaborative efforts in course scheduling, recruitment, and retention efforts.

As noted in section 3 of this document, the Automotive Technology has received acclaim for the quality of the program faculty, facility, and curriculum. The quality of the program has attracted donations of vehicles, major components, tools, electronic service information, and online training modules for students and faculty. All of these items lend prestige and quality to the program, and in turn to UAA.

The UAA Automotive Technology program is the go-to program for professional development training for working technicians. General Motors has contracted with the program to have GM specific training courses for their technicians for over 2 decades. Fiat Chrysler Automobiles, and more recently, Subaru, are working with program faculty to develop training for their technicians at UAA as well. These partnerships provide an immediate benefit to our students as they enter the workforce with significant industry certifications in addition to their academic credential.

Our AAS graduates are well prepared enter the workforce as technicians, and then to move from technician positions to lead or foreperson positions, and other related positions such as service writer or parts person positions. Employers tell us that they are experiencing difficulty in finding employees for each of these related positions.

Automotive Technology Program staff and faculty are committed to providing a quality education that enhances student opportunity for career opportunities. The program provides students understand the gravity of what role they play to our local economy and student success. We are committed to self-evaluation through assessment processes including program accreditation through ASE. Program continues to be recognized by industry partners, resulting in generous donations of equipment, tools, service information, and online training modules; each of these donations serve to enhance the learning process at reduced cost to students.