Automotive Technology - Certificate - Full Review & SLOA

Current Compliance Year: 2022-2023
Full review

Recent Recommendations

Feedback will include recommendations from the last Expedited Review or from your most recent review by your school or college. You may not see any feedback or recommendations until you have completed your first full or mid-cycle review.

Response to Previous Recommendations (if any):

- Increased program representation at local community events to increase enrollment.
- Increased Industry partner guest speakers to the class.
- Stress the importance of program completion and practicum completion to students so they may graduate on time.
- Increased Faculty in-person visits to industry partners.
- Implemented online advising availability hyperlink so students may book a time to meet with faculty at their convenience.
- Continue to represent the program at CTC registration events.

Student Learning Outcomes

The previous Student Learning Outcomes Assessment has been submitted as its own report. Going forward you will use the following prompts to discuss the success of your most recent SLOA plan and address your assessment activities since your last SLOA report (typically the past two years or since your last program review).

Learning outcomes feedback from last review:

Feedback will be provided once you have completed a full or mid-cycle review.

Discuss your SLOA findings, changes you are making and what you hope to see as a result:

- Graduating students retained and showed satisfactory knowledge of Suspension & Alignment, Brakes, Electrical, Electronics, Engine Theory & Diagnosis, and Engine Performance skills taught in the program.
- Students that did not graduate were either missing their Practicum requirements, or needed to repeat a class.
- Required student Journal assignments teaches writing and note taking skills needed as an Automotive Service Technician.
- Required student Oral Presentations show strong evidence of improving communication skills needed as an Automotive Service Technician.
- Exit exams for graduating students are evidence of learning necessary math and computation skills needed as an Automotive Service Technician.
- Employers are reporting improvements on problem solving and troubleshooting skills.

- Graduate numbers had a major decline during the COVID pandemic.

Discuss the curricular changes made based on assessing your SLO. If you haven't made any curricular changes, please explain why not and address what you did notice in the review, including strengths of your curriculum through the assessment of your outcomes:

- Additional problem solving projects have been incorporated into all areas of the curriculum.
- Changes from previous years continue to show improvements in each students skills of Human Relations, Computation, and Communication.

Are communication outcomes embedded in the SLOA Plan?
As of 2017 all Baccalaureate programs were required to embed the communication outcomes within their SLOA Plans, this is optional for non-Baccalaureate programs.

Embedded

Student Success

To access the Student Success Dashboard please sign into a UA computer with VPN connection (if not on campus). You will need your UA credentials and it is best accessed with the most updated version of Chrome, Edge, Firefox or Safari browsers; Internet Explorer is not supported. You will need to filter the data to see your programs. If you need assistance in finding the data for your programs, please contact your data liaison or Julia Manfredini in the PAIR office.

Data Liaisons
Each school or college has a team of Data Liaisons to help you analyze the data provided in the portal and may be able to help you see your data in multiple contexts. You can find a list of data liaisons on the resources page for Program Review.

The college or school level committee will also have access to this data with the goal that by providing these visualizations data availability will be increased.

Data supplied within the dashboard linked below is intended for Academic Program Review and not for any other purpose.

Student Success Data Dashboard

Previous Feedback
Feedback will be provided once you have completed a full or mid-cycle review.

Student Success Data Trends:

Increase in majors,Increase in persistence,Increase in SCH

If equity gaps were found in any of your disaggregated student success data, please explain how you plan to address those gaps. Please contact your data liaison or make an appointment with Julia Manfredini to learn more about analyzing your data.

- Typically in the field of Automobile Mechanics, there has always been an increased number of [redacted] vs. [redacted] However, there the industry overall has seen an increase in [redacted] automobile technicians in the last decade.
- The UAF/CTC Automotive Technology program continues to have a diverse range of age, ethnicity, and race.
- One example that the program has done the past few years, is reach out to potential new students in the local "women's affair" event held at the Carlson Center. Program coordinator feels that this is helping to bridge the "gender gap".

Optional Data Explanation

Feel free to share more of your thoughts on the data provided.

- The Automotive Technology program has "opened it's doors" to students that only want to take a few or select courses, rather than the entire two semester certificate program. This has increased both majors, and student credit hours. However, by doing this, it decreases the amount of certificates awarded to "completers" or "graduates" to the program.

High Impact Practices

According to the AAC&U, High-Impact Educational Practices "have been widely tested and have been shown to be beneficial to college students from many backgrounds." UAF is particularly interested in Undergraduate Research and/or Scholarly Activity because it is one of our mission fulfillment indicators, but all of these researched High-Impact Educational Practices should be reflected in your program's student learning outcomes and curriculum.

Previous Feedback

Feedback will be provided once you have completed a full or mid-cycle review.

High-Impact Practices Used in this Program

Please use the following fields to discuss how your program is using the high-impact practices, successes and known issues and solutions, or ways you are considering incorporating them in the future. If you are not using any of the high-impact practices listed, please use the "Other or None of These," filed to share what your program is doing to help students be successful.

High Impact Practices that currently apply to your program:

Internships

Collaborative Assignments & Projects

Undergraduate Research

Diversity/Global Learning

ePortfolios

First Year-Seminars & Experiences

Writing-Intensive Courses

Service-Learning and/or Community-based Learning

Internships

Capstone Courses & Projects

Other or None of these (explain)

Program Profile and Financial Data

The program review elements in this section usually stay consistent for departments. Any responses you provide will be saved for your next visit. So, when it's time for the next program submission, your previous narrative profile answers will be here, ready for editing. You can then decide if any updates are necessary, based on your needs for the next program review cycle.

Financial Data Resources

The Board of Regents shapes program review, through BOR Policy 10.06, to support budget increase advocacy in the state legislature. The standardized financial data template should be analyzed with your data liaison to assess your program's capacity and resource status.

To keep integrity and remain standard across all of UAF it is very important that you do not provide any additional or alternative data.

Financial Template

Your data liaison may have uploaded your template to the Google folder for this program, or you may do so now.

Previous Feedback

Feedback will be provided once you have completed a full or mid-cycle review.

Cost Effectiveness

How does your department/program approach being cost effective?

'- Program has seen an increase in total student credit hours post COVID pandemic.
- Program has seen an increase (over double) in majors post COVID pandemic.
- Program works directly with industry partners to obtain the best possible prices on consumable materials, as the cost of these supplies has dramatically increased over the last 2 years.

- Industry partner donations on consumable materials has increased, and greatly helps keep the program going.
- Tuition revenue has seen an increase over FY2020.
- Program course fee revenue has increased over FY2020.
- Program coordinator is performing all maintenance on the shop equipment and program vehicles on a case by case basis, therefore saving the program potentially thousands of dollars annually.

Program's Value to Mission

- Program has a very diverse student body of all ages, genders and ethnicities. Preparing [redacted] that want to pursue the Automotive industry as a professional career, and educating the [redacted] of students the ability to learn new skills in today's highly advanced and technical field of auto mechanics.
- Alaska's economy highly depends on the automotive infrastructure. Technicians are consistently needed to service and maintain vehicles for the general public, aviation ground support, military, mining, construction, railroad, fishing, oil and gas exploration industries.
- The Automotive Program educates Alaskans for it's technical workforce, much of this work is done in the field and elements that only Alaskans are truly prepared for.

Duplicative Programs

'- Both UAF and UAA offer a certificate in Automotive Technology, with UAA adding the option of an AAS degree. The UAF/CTC Maintenance & Light repair (MLR) based certificate program can be achieved in only 9 months.
- UAF/CTC offers the ability for students to begin the cohort based program at the beginning of each semester, rather than restricting new students to a "Fall only start"

Community or Other Partnerships

'- The Automotive Tech program has industry partnerships ranging from large dealerships to local independent repair shops.
- A total of 4 scholarships (two [redacted] and two [redacted]) are available to Automotive Students per fiscal year. These scholarships are donated by the NAPA Auto Care Centers, NAPA Auto Parts, and University Chevron.
- Snap-On Tools, Mac Tools, Matco Tools, and NAPA Auto parts offer enrolled students major discounts on tools while they are enrolled in the Automotive Technology program.
- Local businesses, auto parts stores, and automotive dealerships offer the Auto Tech program a generous discount on parts and supplies that are consumed throughout each fiscal year.
- NAPA Auto Parts annually donates [redacted] of consumable supplies that are needed to keep the program running.
- Multiple dealerships have donated brand new engines to the program that students use for disassembly and reassembly. Again, at no cost to the program, this is a very valuable asset and partnership.
- Bosch offers us a 20% discount on our scan tool software renewals annually.
- Both Ford Motor Company and General Motors provides online training available to Automotive students, staff, and faculty at no cost to the program.

Value of Service Courses (Optional)

- Service courses are taught as demand warrants. By offering these services courses, for example the ones that are taught at Fairbanks Youth Facility, helps to bring awareness of the certificate program.

- Service courses are useful to our industry partners by providing the most up-to-date training and information to Automotive Technicians that are currently working in industry.

Post-Graduate Success

- Extreme need for Automotive Technicians not only locally, but nationwide.
- Alaska Department of Labor and Workforce Development reports a 5.8% increase in job openings over the next 10 years. This breaks down to a need of 177 Automotive Technicians annually in just the state of Alaska.
- Program continually assists students seeking job placement.
- Program coordinator meets with industry partners regularly to follow up with student success in industry.
- Program coordinator continues to mentor post-graduate students working in industry.

Submission

Submitter & Collaborator Names

Shawn Conell
Ben Schauble
Tony Thacker

Submitter Email

sconell@alaska.edu

College or School Review Committee

The college or school committees set the tone for helping each program feel seen during this process. We have provided you with strength-based feedback tags to attach to this program review. Please select as many as applicable.

Overall Recommendations

Increase enrollment,Increase graduates,Address equity gap

Explanation of Recommendations

The program profile communicates an informative overview of the program including the basics of the educational process, the value of the industry partnerships, and the need for skilled automotive technicians in Alaska.
The 2020-22 period shows strong program growth in terms of majors, SCH and revenues. However a significant gap between revenues and expenditures exists.
The report notes the increasing need for Automotive Technicians in Alaska and the program's focus on attracting [redacted] students. As mentioned, increased representation at community events may help gender diversity and overall enrollment numbers. Other creative marketing strategies may be considered if viable, e.g. focusing on high school students and offering more service courses.
Strategies to encourage students to complete the entire program instead of specific courses would help to increase graduation rates.

Student Learning Outcomes Assessment Feedback (tags)

Strong alignment with SLOA plan,"Clear, concise presentation of findings",Missing a direct measure

Student Learning Outcomes Assessment Feedback (narrative)

The program requires exit exams for graduating students for evidence of learning necessary math and computation skills. It would be helpful if the report including data about successful completion rates. Per the report, employers have reported improvements on problem solving and troubleshooting skills; reporting the specific survey data could help drive focused curricular changes. Per the SLOA Plan, post-graduation statistics are tracked to determine employment data; however this information does not appear to be included in the report.

Profile Feedback

Program is mission-centric to UAF or college/school,Providing job placement for graduates,Strong ties to the community or industry

Financial Feedback

Productive Faculty,Opportunities to Increase Revenue

Student Success & Equity Feedback

The student success data trends shows increases in majors, persistence and student credit hours in the last three years. The program recognizes the disproportionate numbers of [redacted] vs. [redacted] in the industry overall and has attempted to bridge that gap by marketing to [redacted] The data reveals that majors and student credit hours have increased while the completion rates have decreased which the program explains is due to allowing students to take select courses instead of the entire program. The Covid pandemic significantly affected graduation numbers.

High-Impact Practices Feedback

The high impact practice of requiring an internship assists students in post-graduate employment. The program coordinator also meets with industry partners who employ their students to obtain feedback on curriculum changes.

Dean’s Review Feedback

I agree with the overall committee recommendations. The growth of the program enrollment post pandemic is noteworthy. The program's efforts to address the equity gap continues to be strong. There is an opportunity for the program to create OE's or microcredentials with a focus such as electrical to serve workers in the industry who need to strengthen or increase their skills.

UNIVERSITY OF ALASKA FAIRBANKS

Student Learning Outcomes Assessment Plan

Automotive Technology

UAF Community and Technical College

11/17/2022

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: **The Automotive Technology Program is designed to enable students to gain understanding of automotive systems and practical skills leading to gainful employment in the automotive technology industry.** **The Certificate in Automotive Technology provides prospective technicians with needed skills and training to compete for positions in auto service, parts distribution, auto diagnostics and testing, auto sales/service, and related fields** **Students will gain a systems understanding of contemporary automobiles and light trucks. They will gain practical skills and on-the-job experience in diagnosing, repairing,**	Students who complete the Automotive Technology Program will possess the skills and knowledge to become highly competitive candidates for job openings and promotions within the automotive technology and related fields.	Graduates will secure employment as an automotive technician or a closely related field or go on for additional education, training or experience within one year. Students will take an exit exam covering ASE Education Foundation tasks to determine their skills in automotive technology. Students who obtain a certificate will express satisfaction that the skills and knowledge they gained in the program was appropriate and adequate for their entry into the automotive technology field.	Program coordinator will track students and collect data every fall semester and provide this information to the program review committee. Program coordinator will administer an exit exam each graduating semester prior to completion of the program to assess learning outcomes Program coordinator will conduct Outcome Assessment Graduate questionnaire prior to graduation and disseminate the results to the Automotive Technology faculty
	Employers of graduates of the Automotive Technology Program will be satisfied that these graduates possess the skills and knowledge necessary for entry level positions as an automotive technician.	A questionnaire will be sent to employers of graduates every fall semester to gauge the programs efficiency of applied knowledge of the student going into the industry at entry level.	Program coordinator will conduct survey of employers of graduates from previous two years and disseminate the results to the faculty

Shawn Conell 11-17-2022

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and maintaining such vehicles. **GOAL STATEMENT:** **Provide a unique learning environment where students can obtain a high quality classroom education, hands-on training and practical vocational experience in the automotive technology industry and be responsive to the needs of communities, industry and government throughout Alaska.**			
	Computation assessment and procedures:	Students will take an exit exam; that includes math computation problems of a type they would typically encounter while working as an automotive technician.	Program coordinator will administer an exit exam prior to completion of the program to assess that student's learning outcomes in computation to ensure the adequacy for employment as an automotive technician.
	Writing skills assessment and procedures:	Students will keep and maintain a logbook journal of vehicle maintenance performed in Auto F102, F122, F150, F162, F110, F131, F227, F202, & F222 automotive technology classes.	Program coordinator will collect and evaluate student's logbook journals each semester to assess that student's learning outcomes in writing are adequate for employment as an automotive technician.
	Oral communication skills sufficient for employment And Understanding of human relations	Students will give an oral presentation and engage in mock customer interactions in Auto F102, F162, F110, & F222 automotive technology classes.	Program coordinator will evaluate student's oral presentations and customer interactions each semester to assess that student's learning outcomes in oral communication and human relations are adequate for employment as an automotive technician.

Fiscal Report for CTC Automotive Technology

	FY2020	FY2021	FY2022	Definitions for the compiling staff	Definitions for the programs and reviewing committees
Total Student Credit Hours (SCH)	257	193	373	Provided in SCH tab in the student success data provided by PAIR.	Total Student Credit Hours delivered in courses/subject codes attributable to the program/department. Comes from the data dashboard.
Service SCH	3	83	44	Sum rows labeled as "In unit, outside department, Service" and "Outside unit, Service" in the SCH tab of the data provided by PAIR.	
Department FTEs	0.98	1.08	1.11	FTE = Full-time equivalent employee. Use the worksheet below to calculate for each employee type, and then use the total from row 31 here.	FTE = Full-time equivalent employee. Fiscal staff have used the worksheet below to calculate for each employee type in this program/department's staffing.
Total SCH per Department FTE	262.04	178.58	337.32		Total SCH divided by employee FTE for the year. May give insight into departmental productivity scaled to the size of the department.
Service SCH per Department FTE	3.06	76.80	39.79		Service SCH divided by employee FTE for the year. May give insight into departmental productivity scaled to the size of the department.
Majors in Programs	10	8	23	Sum for all programs from the Majors Total tab in the data provided b	Total majors in the program (or all programs in the department), in the Majors table of the data provided by PAIR.
Department FTEs	0.98	1.08	1.11	From row 31 below or row 5 above	FTE = Full-time equivalent employee. Fiscal staff have used the worksheet below to calculate for each employee type in this program/department's staffing.
Majors per Department FTE	10.20	7.40	20.8		Total majors divided by employee FTE for the year. May give insight into departmental productivity scaled to the size of the department.
Total Unrestricted Expenditures	[redacted]	[redacted]	[redacted]	Total Expenditures made from budgets with an F1 or F7 fund type designation, from provided cycle report data filtered by Data Liasion	
Total Restricted Expenditures	[redacted]	[redacted]	[redacted]	Total Expenditures made from budgets with revenue of the F2 or S2 fund type designation, from provided cycle report data filtered by	
Total Unit/Central Support Allocated to Program(s)	[redacted]	[redacted]	[redacted]	Expenses incurred for direct support of instruction within orgs identified as central or academic support, if applicable	
Tuition Revenue	[redacted]	[redacted]	[redacted]	Receipts to college from tuition generated by the department/program (F1). NOTE: under the current 80/20 percent tuition distribution model generating units receive 80%. PLEASE USE PAIR REPORTED SCH TO REPLACE ZEROES IN CELL CALCULATIONS.	Receipts to college from tuition generated by the department/program, based on the campus's active tuition distribution model, which determines how much the unit receives of their generated tuition, and how much the campus keeps (in addition to the out-of-state surcharges) to support central offices/functions. The current distribution model is 80/20, where the unit/college receives 80% of their generated in-state tuition.
State Appropriation Revenue	[redacted]	[redacted]	[redacted]	Appropriations for current funds operation of the university from the general fund of the State of Alaska through the annual budget cycle. This category also includes TVEP and State Mental Health Trust funds, if allocated to the department. (F1)	Appropriations for current funds operation of the university from the general fund of the State of Alaska through the annual budget cycle.
Restricted/Sponsored Project Rev	[redacted]	[redacted]	[redacted]	Revenue from external sponsors; includes grants, contracts, sponsored projects & restricted (grant) accounts funded by UA Foundation funds (F2/S2)	Revenue from external sponsors; includes grants, contracts, sponsored projects & restricted (grant) accounts funded by UA Foundation funds
Fees	[redacted]	[redacted]	[redacted]	Course Fees (9159)	
Other UA Receipts/Revenue	[redacted]	[redacted]	[redacted]	e.g. Performance and Sales Receipts, Space Rental Revenue, Indirect Cost Recovery (F1/F7); NOTE: COURSE FEES (9159) REPORTED ABOVE	
Units	18	18	18	Department facultys' workload units assigned to teaching	
Workload allocation: Service Units	12	12	12	Department facultys' workload units assigned to service	
Workload allocation: Research Units				Department facultys' workload units assigned to research	

Full-time Equivalent Worksheet*	FY2020	FY2021	FY2022	
Faculty FTEs	0.75	0.75	0.75	**Base assumption: 12-month full-time = 1.0 FTE. 9-month = 0.75 FTE.** Split appointments are multiplied by the % of effort assigned to this department. Part-time are multiplied by the % of effort assigned. F9 faculty on sabbatical count as 67% of one 9-month 0.75 FTE (or 0.50 FTE).
Adjunct FTEs	0.000	0.100	0.125	**Base assumption: 40 units/credits = 1.0 FTE.** Total # of credits taught by adjuncts in a year divided by 40 = the FTE of adjuncts in that year.
Staff FTEs	0.231	0.231	0.231	**Base assumption: 12-month full-time = 1.0 FTE. 9-month = 0.75 FTE.** Split appointments are multiplied by the % of effort assigned to this department. Part-time are multiplied by the % of effort.
Graduate TA/RA FTEs	0.000	0.000	0.000	**Base assumption: 40 hours/week for 12 months = 1.0 FTE. 9-month = 0.75 FTE.**
Total Departmental FTEs	0.981	1.081	1.106	Sum of all employee FTEs

****Note: FTE definitions and calculations for the purpose of Academic Program Review are different than for other institutional reporting processes (e.g. OMB or IPEDS reporting)**

Student Learning Outcomes Assessment Summary

Automotive Technology, certificate

UAF Community and Technical College

AY 2019-2020

Submitted by: Shawn Conell
Contact Information:sconell@alaska.edu or 455-2917
Date: 02/11/2021

1. **Assessment information collected**

A.) Automotive Repair & Maintenance Skills

1.) Students who completed both semesters of classes were given an exit exam to determine their knowledge and skills of all the courses taken throughout the year.

2.) Students are required to be able to properly perform all of the hands-on tasks that are taught throughout the year. This is part of our national accreditation through the Automotive Service Excellence (ASE) Education.

B.) Embedded Subjects

1.) Students are required to keep a journal for each unit class. Student journals are evaluated & graded using a rubric. The breakdown of the journal is given in each unit class syllabus.

2.) Students are required to give an oral presentation to the class & faculty at the end of each unit class. This presentation is evaluated for quality, content & communication skills.

3.) Students are given an exit exam at the end of their 2nd semester that involves math computation problems related to the automotive industry.

C.) Employers satisfaction survey

1.) Student's employers are met with throughout the year & collectively evaluated of the skills learned in each class.

2.) A Total of 6 Graduate Student's employers were interviewed throughout the 2019-20 year, and a very positive feedback of performance was indicated. 1 employer reported that the student was showing up to late to work.

D.) Instruments & tools used for evaluation

1.) The Lead Faculty for the Automotive Technology program maintains a spreadsheet for each student as they complete each of their required ASE Education Foundation Tasks.

2.) The grading breakdown of the student journal assignment is given in each class syllabus.

3.) The employee survey is sent to each of the student's employers during the time that they are completing their required practicum assignment.

E.) Completion rate

1.) At the end of the Fall 2019 Semester: 1 student graduated, 6 students continued to the Spring 2020 Semester, 4 students quit to pursue other things. 1 student withdrew before the end of the semester & moved out of state.

2.) At the end of the Spring 2020 Semester: 5 students graduated, 1 will continue to the Fall 2020 semester, 1 student moved out of state, 1 students did not finish their Auto F190 Practicum requirement in time to graduate.

3.) 20 students were used for data collection during the Fall 2019 & Spring 2020 semesters.

2. Conclusions drawn from the information summarized above

A.) Automotive Repair & Maintenance Skills

1.) Overall, all graduating students retained and showed satisfactory knowledge of Suspension & Alignment, Brakes, Electrical, Electronics, Engine Theory & Diagnosis, and Engine Performance skills taught in the program. Those students that did not graduate but completed both semesters of the program lacked completion of the Auto F190 Practicum.

B.) Embedded subjects of Human Relations, Computation, and Communication were reviewed with the following results:

1.) The journal assignment that each student is required to construct teaches each student the writing & note taking skills needed as an automotive service technician.

2.) The oral presentations that each student gives shows strong evidence of improving the communication skills needed as an automotive service technician.

3.) The exit exam that each 2nd semester student takes before graduation is direct evidence of learning the necessary math computation skills needed as an automotive service technician.

C.) Employers have reported that students are showing strong improvement on problem solving skills & troubleshooting.

3. Curricular changes resulting from conclusions drawn above

A.) Automotive Repair & Maintenance Skills

1.) While analysis showed that students retained and showed satisfactory knowledge of topics, additional problem solving projects were incorporated into the curriculum in all areas.

B.) Embedded subjects

1.) The changes made from previous years SLOA plan show a significant improvement in each student's skills of Human Relations, Computation & Communication.

4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting

All the Automotive Technology changes were addressed by the Program Coordinator, Instructor, & adjunct instructors which consist of:

Shawn Conell
Ben Schauble
Tony Thacker