

Powerplant - Certificate

Current Compliance Year: 2023-2024

Mid-Cycle 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):

The department is consistently encouraged to eliminate the Airframe (only) Certificate and the Powerplant (only) Certificate.

There is one FAA Mechanic's license with two possible ratings: Airframe and/or Powerplant. The program is certified by the FAA to offer Airframe, Powerplant, and Airframe AND Powerplant curricula and does so consistent with this authorization. This is done to serve "both types" of mechanics entering industry even if most do both Airframe AND Powerplant.

The program offers 3 certs, one of which is "Airframe AND Powerplant" combined. This certificate option is by far the most popular. Keeping the other 2 certificate options allows the department to serve the occasional student who only needs 1 of the FAA ratings.

There is NO added cost to keeping the certificates available as the courses for both Airframe Only and Powerplant Only are within the Airframe AND Powerplant Certificate major.

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:

Examination of the FAA Test Data as compared to the National Norms shows that program performance has been largely consistent and above the national average for pass rate on the first try.

Employment Rate remains at 100% no doubt due at least in part to overwhelming demand for aircraft mechanics nationally.

Employers remain pleased with UAF CTC graduates and prefer them over grads from other schools in the PNW region.

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:

Despite decades of past successes, the program is implementing a new set of classes to update them matching current FAA standards with UAF standards and industry needs while maintaining the character of the program that has made it so successful.

This is largely stemming from a change to the FAA regulations that govern the program, 14cfr147, and a collection of minor changes that have been desired over the years, but virtually impossible under the old FAA rules.

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: (please indicate the trends that apply to your program)

Equity gaps

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.

The majority of majors are reporting [REDACTED] and [REDACTED]. It is desirable to increase the number of majors from all underrepresented groups. There are coming curricular changes and equipment updates to appeal more to small airlines that serve rural Alaska in the hopes that recruitment, retention and student success of [REDACTED] students increase.

Other curricular changes will highlight larger airlines as well (Alaska Airlines) who can hopefully assist in recruiting a more diverse student body as they seek out a diverse workforce for their companies. A formal partnership is in the works with Alaska Air to enhance their Technician Development Program which has already sent nearly 10 people of color to this program with financial assistance from the company.

Optional Data Explanation

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

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,” field to share what your program is doing to help students be successful.

High Impact Practices that currently apply to your program:

None of these

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)

This program is a 12-month intensive Certificate Program in which students attend class 8hrs/day, 5days/week. This is our successful practice - immersive education.

Submission

Submitter & Collaborator Names

Kevin Alexander

Submitter Email

kwalexander@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

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Explanation of Recommendations

The review panel acknowledges the time and effort that went into preparing the mid-cycle program review for the Powerplant Certificate program. The program has a strong and clear partnership with the Federal Aviation Administration (FAA), which has certified the program to offer certificates in Powerplant, Airframe, and Airframe & Powerplant. The program recognizes that both the Powerplant and Airframe Certificates have consistently low enrollments due to most students choosing the combined Airframe & Powerplant Certificate. They state that the FAA certifies the program for all three certificates and being able to offer the two stand-alone certificates meet the needs of the occasional student.

Many of the comments for the Airframe & Powerplant Certificate, Powerplant Certificate, and Airframe Certificate are the same because, outside of the student success data, the program reviews were nearly identical. SLOA plans are very similar or identical among the programs. It is essential that different programs have different outcomes - if students are intended to learn the same things, how are the programs differentiated? Something to resolve, per some of the guidance below, for the full-cycle review in two years.

Learning Outcomes Feedback

Requires Major Revision

Student Learning Outcomes Assessment Feedback (tags)

Missing a direct measure,Missing active verbs,Missing curricular connection

Student Learning Outcomes Assessment Feedback (narrative)

The program provided 3 SLOs for the Powerplant Certificate SLOA plan. The review panel offers the following recommendations to improve upon the program's SLOAs:

- SLO # 1 is a program outcome and not tied to student learning. The program is encouraged to retain this measure of outcome assessment for their own internal tracking purposes (just not use it as part of program review).
- SLO #s 2 and 3 were not well-defined SLOs as written. These two statements could be updated to be SLOs if the program defines the skills and/or knowledge to be attained by students in the program.
- Per guidance from the NWCCU for accreditation purposes, they recommend that degree programs have between 3-5 SLOs per program. As a result, the program will need to identify at least one more SLO that is not a program outcome and that indicates skills and/or knowledge attained by students from the program. This should be done by the program as they refine their SLOs during their development year in advance of their full program review in two years.
- The program might consider revising the outcomes to include more "action" words. It is difficult to assess things like "understand" or "recognize." "Identify", "explain", or "analyze" are clearer outcomes to assess.

SLOA discussion is tied to post-graduation success and meeting the needs of the industry. This program appears to be industry-driven but needs to be clearer on how SLOA and curricular changes are tied to workforce needs.

The program indicates that it is currently updating its curriculum to better align with FAA standards. The review panel recommends that they ensure their SLOA is updated alongside the curriculum updates.

The program should consider more assessments that go beyond passing a class or exam in their program. Refining data collection and analysis procedures will be important to go along with revising their SLOs before the next review.

Following NWCCU guidance, SLOA plans must emphasize "closing the loop" and continuous improvement, ensuring each SLO within the plan is assessed individually to verify alignment with program objectives. If a SLO fails to produce the expected assessment outcome, adjustments to SLO language, substantial changes to the SLO, or revisions to data collection rubrics are necessary to ensure alignment and facilitate program improvement.

Student Success & Equity Feedback

The program identified equity gaps tied to the high proportion of white males in the program. They state that the curricular changes and equipment updates will appeal to more rural communities and rural students. The review panel recommends that it would be good to expand on this further and determine if there are any specific demographic percentages/targets that are being aimed at by the program. They also speak to partnerships with Alaska Airlines that they have already seen bring in a more diverse student body. The review panel noted an increase in majors from 1 in 2022 to 3 in 2023. The program had 1 graduate in 2023.

High-Impact Practices Feedback

There are no high-impact practices identified, though it seems reasonable that there must be some. If not, please consider incorporating HIPs, as they have been shown to increase student engagement and success. All HIPs should include an in-depth narrative, examples of student activities and/or products, and where the HIPs fit into the curriculum.

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan
Powerplant Certificate
Community and Technical College

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: The Aviation Maintenance program provides individuals with Quality academic, technical, and professional skills required for entry-level employment into the Aviation Maintenance Field. GOAL STATEMENT: Prepare students for employment in the Aviation Maintenance Industry. 1. Make students the most attractive candidates for job openings and promotions within the aviation industry and related fields within Alaska 2. Provide a learning environment where students can obtain high-quality classroom education, hands-on training and practical vocational experience in a unique Alaskan Aviation environment. 3. Be responsive to the needs of the communities, industry and government throughout Alaska and the 49 states with respect to the requirements of Aviation Maintenance Professionals.	Students who complete the Powerplant Certificate in Aviation Maintenance will possess the skills and knowledge to become highly competitive candidates for job openings and promotions in repairing and maintaining Powerplants.	Graduates will secure employment in the Aviation maintenance or a closely related field or go on for additional education, training, or experience within one year. Students will demonstrate satisfactory skill in each aspect and subject area of the program exit exams given in AFPM 272. Graduates will pass the following FAA written exams on the first try AMG (General) AMP (Powerplant) and obtain their FAA Powerplant Certificate.	The program faculty will track students and the Program Head will collect data every fall semester and provide it to the program review committee. Instructors will analyze student performance in each subject examined in written, oral and practical exams and provide data to the program review committee. Results will be compiled by the Program head annually from the FAA reports of Testing Norms for AMG and AMP, and provided to the program review committee.
	Employers will be satisfied that graduates possess the skills and knowledge expected of professionals in the aviation industry.	Written and/or oral assessment of employers and advisory committee members about computation, communication, human relations and technical skills of employed graduates.	Program head will conduct survey every fall semester and provide information to the faculty and program review committee.
	Students will possess writing, oral communication and computation skills and an understanding of human relations skills sufficient for employment in the aviation maintenance industry.	Students will successfully demonstrate satisfactory skills during the written, oral, and practical skill elements of the program exit exams given in AFPM 272.	Pass/Fail Data on each element of these exams will be collected annually by the Program Head and will be provided to the program review committee.