Associate of Science - Associate of Science

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 previous review of the Associate of Science (AS) degree had two recommendations for the program.
1. Strengthen academic practices.
2. Improve tracking of students who have graduated with the AS

Action plan on the recommendations:

1. Strengthen the academic practices -

i) The program has consistently offered at least four general ed courses in natural sciences each semester.

ii) The program-affiliated faculty mainly teach courses in a synchronized distance delivery format and not the asynchronous format. In a synchronized distance delivery format, the faculty instructor and the students are online at the same time, which makes the classes more interactive. This leads to better student learning and makes it easier to meet the learning objectives of the course.

Both these actions are designed to strengthen the academic practices of the AS program.

2. Improve tracking of students who have graduated with the AS

i) The program has developed a plan to address the issue of tracking its graduates. We propose to collect the personal email addresses of all the students who apply for graduation for the AS degree. Each year, a short Google form-based survey will be sent to all AS graduates to their email addresses. This survey will gather information about the educational opportunities AS graduates are currently pursuing. It will also collect information if the AS graduate has moved to a professional career or an employment opportunity. This will help us better track the AS program graduates.

Here is the link to the Survey.

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:

The principal Student Learning Objective of the Associate of Science (AS) degree is that 50% of the AS completers will continue to enroll in a bachelor's degree program.
Overall, the students who declare and earn the Associate of Science (AS) degree ultimately do continue with further education and go on to enroll and receive a bachelor's level degree.
Some AS degree recipients also go on to earn another Associate-level degree in applied sciences in professional fields such as allied health.
An assessment of the student learning outcomes for the program identified two lacunae/loopholes with the AS degree program -
1. Lack of defined concentration courses: Some students from the AS program cite the lack of specified concentration courses within the degree. Students must complete at least 15 credits of concentration courses to obtain the AS degree. However, the concentration courses are not specified.
2. Lack of availability of acceptable concentration courses via distance delivery: Some students in the AS program are experiencing a delay in completing the AS degree requirements due to the lack of availability of elective science courses (courses without the X designator) offered via distance delivery.

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:

Based on the Student Learning Outcome Assessment, the Associate of Science (AS) program has recognized the lack of specialization within the AS degree. Additionally, there is a void in the AS degree since there are no defined concentration courses.
Initially, the AS degree was envisaged as a degree that would focus on general education geared toward the natural sciences.
To fill this void in 2021, curricular changes were made to the AS degree. The Ethnobotany concentration was included in the AS degree. At the same time, the undefined elective courses were categorized as General Science concentration.
With the creation of these two concentrations, an effort was initiated to provide a list of specific elective courses for the students to take to help them complete the AS degree successfully.
In the future, the program will look at developing additional concentrations with a specified list of courses to complete for the AS degree. The possible concentrations being contemplated include but are not limited to - A) One health concentration. B) Sustainable energy, C) Biomedical Sciences.

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.

Not 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)

Decline in majors,Decline in degrees awarded,Increase in SCH,Something else (use data explanation field to describe)

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.

Specific equity gaps were not identified in the student success data for the Associate Science (AS) degree program. Here is a discussion of the trends seen in the student data for the AS degree program Overall, the student data trend for the Associate of Science (AS) degree is complicated.
1) Student enrollment numbers have fluctuated over the past 5-years. This is a clear impact of Covid-19. While the student enrollment number in the AS was high before the pandemic, there was a 27% drop in enrollment during the pandemic years of 2021 and 2022. The enrollment is on a rebound, as seen in the numbers for the current year (2023). We expect the enrollment to return to the pre-pandemic year in the next few years.
2) AS degree graduates mimic the trend seen with enrollment numbers for the past 5-years. The drop in AS degree recipients can be attributed to the societal and educational impacts of COVID-19. While the number of AS degree completers was high before the pandemic, there was a 44% and a 68% drop in AS graduates in the pandemic years of 2021 and 2022, respectively. Graduation number is on a rebound, as seen in the number of graduates for the current year (2023). Graduation rates are expected to return to pre-pandemic levels in the next few years.
3) Student Credit Hours have not followed the trend seen with either student enrollment or the number of degrees awarded. Student credit hours have consistently increased over the past five years. This is because many of the courses offered by AS program faculty are general ed courses in natural sciences. These courses are taken by students of other majors looking to complete their general ed requirements.

Optional Data Explanation

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

There has been a 30% increase in the number of [redacted] students in the Associate of Science (AS) program over the past five years for which data is available (2019 to 2023). This fact indicates that the AS degree program contributes to the focus of the College of Rural and Community Development and to the broader aim of UAF to support [redacted] and [redacted] student success.

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:

Undergraduate Research

Collaborative Assignments & Projects

Undergraduate Research

The Associate of Science (AS) program has adopted several practices that create an impact on student learning. These practices help students succeed academically and gain a rounded knowledge of hypothesis-driven science. The faculty of the AS program regularly supervises students in research projects. They help students apply for undergraduate research grants through URSA (Undergraduate Research and Scholarly Activity) and BLaST (Biomedical Learning and Student Training) and mentor them in completing small research projects. In these projects, students learn how hypothesis-driven research is carried out in a given field of science.
For example, in the Spring 21 semester, an AS program-affiliated faculty supervised and mentored an undergraduate student to execute and complete a URSA-funded research project successfully.
Similarly, in the summer of 2023, AS program-affiliated faculty supervised six RAHI (Rural Alaska Honors Institute) students to participate in and complete short six-week-long research projects.
AS program faculty regularly publish research articles with an undergraduate student as co-author.
Example: https://www.mdpi.com/2071-1050/15/3/1880;

Diversity/Global Learning

None

ePortfolios

None

First-Year Seminars & Experiences

None

Writing-Intensive Courses

None

Service-Learning and/or Community-based Learning

None

Internships

None

Capstone Courses & Projects

None

Other or None of these (explain)

None

Submission

Submitter & Collaborator Names

Anshul Pandya

Submitter Email

aapandya@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

Strengthen advising practices

Explanation of Recommendations

The review panel acknowledges the time and effort that went into preparing the mid-cycle program review for the Associate of Science AS program. The review panel appreciates that the program provided an in-depth overview on how previous recommendations were addressed. The review panel also appreciates that the program has a plan in place to include concentrations per feedback from students in the program and has a strong HIP in UG research that is tied to BLAST and URSA. We commend the program for providing a degree that has seen positive increase in [redacted] and [redacted] student enrollment.

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 Associate of Science AS SLOA plan. The review panel offers the following recommendations to improve upon the program's SLOAs:
- All 3 SLOs were program outcomes and not tied to student learning. These SLOs are valuable for program outcome tracking and the review panel encourages the program to retain them for that purpose. However, they are not SLOs that can be used as part of the SLOA plan.
- The recommendation from the review panel is to revise the current SLOs so that they provide a means to assess student learning in the program. Specifically, SLOs should address specific knowledge and/or skills (e.g., communications, hands-on learning, etc.) gained by students in the program. 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. https://tips.uark.edu/blooms-taxonomy-verb-chart/.
- Per guidance from the NWCCU for accreditation purposes, they recommend that degree programs have between 3-5 SLOs per program (so your program would need at least 3 SLOs to meet that requirement).

The program will need to provide an assessment plan for collecting data as well as a process to evaluate the SLOs. Collected data/artifacts and the rubrics used to collect these data will need to be included in the full program review in two years. The assessment plan will need to be directly tied to the newly revised SLOs.

The program mentioned that curricular changes were an outcome of the SLO process, but that is not clear based on what is described in the narrative for that section. The program did note several curricular changes they plan to implement based on student feedback regarding the lack of concentrations, and those possible concentrations seem reasonable.

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 a decline in majors and degrees awarded, but an increase in SCH. Also noted was that there has been an increase in the percentage (30%) of [redacted] enrollment in the program since 2019. No equity gaps identified or noted. The program did provide a description of the trends observed in the program in terms of majors/enrollment and SCH, specifically the impact that covid had on those metrics and the rebound in 2023. Also described was the discrepancy between declines in majors and degrees awarded and increases in SCH. Based on the review of these data by the review panel, we noted discrepancies in the student success data assessment. A recommendation is that the Accreditation and Assessment Office at UAF work with the program to ensure that everyone is accessing the same data for future assessments.

The review panel feels that it would be beneficial to see how the program intends to increase student enrollment and support those students in the program. For example, the increases in both [redacted] and [redacted] student enrollment are great. What support mechanisms are in place to ensure that those students can successfully complete the degree program?

High-Impact Practices Feedback

The program identified UG research as a HIP, a well-developed narrative for this HIP, and included a good overview of the role of URSA and BLAST in their narrative as providing a means of supporting UG research. Also provided were good examples of UG research through URSA and RAHI, and a link to a published study with a student in the program. Are there any other HIPs that students either are required to complete or have the option of engaging in through courses or other activities?

The review panel recognizes that the UG Research HIP employed by the Associate of Science AS program was positive and meaningful in preparing students to enter the workforce.

UNIVERSITY OF ALASKA FAIRBANKS

Student Learning Outcomes Assessment Plan

Associate of Science

Interior Alaska Campus, College of Rural and Community Development

November 2023

MISSION STATEMENT: The Associate of Science degree program provides students with quality academic instruction needed to progress to the baccalaureate and other advanced degrees in the sciences as well as to obtain employment in science-related fields.

GOAL STATEMENT: To provide students with the knowledge and skills necessary to succeed in the job market or advanced study

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: The Associate of Science degree program provides students with quality academic instruction needed to progress to the baccalaureate and other advanced degrees in the sciences as well as to obtain employment in science-related fields **GOAL STATEMENT**: • To prepare students for Baccalaureate of Science coursework. • To provide an articulated pathway for certificate students to progress to the Baccalaureate of Science • To prepare students for employment in science-related fields	1. a. Students who complete the AS program will be successful in subsequent baccalaureate or other coursework in the sciences 1. b. Students who declare the AS as their major degree will successfully complete all degree requirements	1.a. 50% of AS program completers will continue to BS or another science-related course work as reflected in Banner 1. b. 75% of students who declare the AS as their major will successfully complete all AS degree requirements	1. a. The AS program admin will be responsible for querying Banner for enrollment statistics on program completers 1. b. The AS program admin will be responsible for querying Banner for graduation statistics 1. c. Administration and analysis of the results of a bi-annual survey of graduates will be conducted by the program manager or designee
	2.a. Students who complete a science-related concentration area will possess the skill and knowledge to move directly to the BS degree in natural or applied sciences	2.a. 50% of the students who complete a science-related concentration area will either concurrently enroll in the BS degree or move directly to the BS degree after completion of their concentration area	2. a. The AS program admin will be responsible for querying Banner for enrollment statistics
	3.a. Students who complete the AS degree with a specific science-related concentration area will possess the skills and knowledge to meet the current workforce demand in corresponding science-related jobs in Alaska	3.a. 50% of those students who successfully complete the AS degree and who do not go on for a BS degree will secure employment in a science-related field in Alaska	3.a. Administration and analysis of the results of a bi-annual survey of graduates will be conducted by the program manager or designee

Submitted by: Anshul Pandya