

ACADEMIC PROGRAM REVIEW FORM

All academic programs and units at UAA are required by Board of Regents Policy P10.06.010 to engage in program review on a seven-year cycle. University Regulation R10.06.010 sets out the minimum requirements for program review, including centrality of program mission, quality, demand, program productivity, effectiveness, and efficiency. Exceptional reviews may be conducted, per University Policy and Regulation, and with the provost's approval. The UAA process integrates information about student learning outcomes assessment and the improvement of student learning, as well as progress on student success measures and the closing of equity gaps, aligning program efforts and resources with institutional priorities. Final decisions include commendations and recommendations, which guide future program efforts. The results of cyclical Academic Program Review are reported to the UA Board of Regents annually and are published on the UAA [Academic Program Review website](#).

This form is composed of four parts: the Program Section, the Dean Section, the Program Optional Response Section, and the Provost Section. Guidance for submission is provided in each section.

Using the Form: The form is pre-loaded with information specific to each program and sent by the dean to the program. The program should download and save their form to begin using it. The form is locked, so instructions are viewable and the only sections of the document that can be edited are the form fields. To ensure the fillable fields function correctly, the form must be completed in Microsoft Word. It will not function properly in Google Docs. Programs that wish to record collaborative discussion of the report might consider creating a separate document to take notes, prior to entering final responses in the official fillable form.

The form uses narrative boxes, text only, and drop-down boxes. Narrative boxes have a character limit, which includes spaces. To undo an answer, press "Control-Z" or "Command-Z."

Responses are to be narrative text only, and must be ADA and FERPA compliant, and must not include the names of any current or former employees. Do not embed any tables or links, including to webpages or other documents. To be FERPA compliant, do not include the names of any current or former students. Rather, use statements such as, "In AY22 four program graduates were accepted to graduate programs in the field." Programs with specialized accreditation or other external recognitions must comply with restrictions regarding what may be published, as per the accreditor or external organization. Do not include appendices. Appendices to this form will not be accepted.

Data: Each program is provided a datasheet, along with this pre-loaded form. For questions about the data, please contact Institutional Research (uaa.oir@alaska.edu).

Assistance: For technical assistance with this form, email Academic Affairs (uaa.oaa@alaska.edu).

Program(s) in the review: OEC Millwright

Specialized Accrediting Agency (if applicable): N/A.

Campuses where the program is delivered: Anchorage KOD KPC MSC PWSC

Year of last review: AY20

Final decision from last review: Continued Review

PROGRAM SECTION (Due on March 1)

The program review committee chair and committee members are assigned by the dean. All program faculty should be included in the review process, including faculty on the community campuses. After completing the Program Section below, the program review committee chair will enter their name and date, and email this form to the dean, copying all committee members. If the program is fully delivered on a community campus, copy the appropriate community campus director(s). The program review committee chair's name and date lines are at the end of the Program Section.

Program Review Committee:

Dennis Eastman, Assistant Professor, Millwright, Chair

1. Demonstrate that the program has responded to previous recommendations.

Recommendation 1: Work diligently to find an alternative to the cramped and limited instructional shop space.

How do you know the recommendation has been successfully achieved? (2000 characters or less)

The situation is improved thanks to relocation of another program that had shared the shop space. However, the efforts to obtain more and better shop facilities remains ongoing. Students, faculty, and PWSC maintenance personnel all report increased safety and productivity in the shop portions of the program instruction, with an increase in timely completion of class projects.

Actions taken to date (2000 characters or less)

While no additional space has yet been found for the Millwright program, over the past academic year, the Maritime Technician program, which previously shared shop space with the Millwright program, was moved to other instructional space that was suitable for it but not for the Millwright equipment. It was easier to move the Maritime Tech program because the equipment used did not need 220-volt power. The move resulted in less crowding in the existing Millwright shop space. However, lobbying with the City of Valdez and other entities is still ongoing to find additional shop space for both programs.

Evidence of success to date (2000 characters or less)

Inspections of the Millwright shop space by several different maintenance personnel and by other technical faculty have indicated much improved conditions, and surveys of current students also support that finding. Millwright faculty report increased productivity in timely completion of student projects.

Recommendation 2: *Explore options for alternative delivery methods, incorporating existing secondary partnerships, apprenticeships, and/or partial distance delivery alternatives to expand the program's reach.*

How do you know the recommendation has been successfully achieved? (2000 characters or less)

Our partnership with Hecla Greens Creek Mine has expanded to include an additional scholarship and apprenticeship, and the current Millwright cohort is being scheduled for a visit to the Greens Creek Mine (Admiralty Island near Juneau). Students report improved satisfaction with distance-delivered portions of the program thanks to the addition of a shop assistant.

Actions taken to date (2000 characters or less)

Continued discussions with industry partners including Tern Technology, Hecla, Pogo mine, and Silver Bay Seafood to secure additional opportunities for students and graduates. We have also hired an assistant shop instructor to facilitate shop instruction during partial distance delivery.

Evidence of success to date (2000 characters or less)

Increased scholarship and apprenticeship opportunities and improved student productivity and satisfaction.

- 2. Demonstrate the centrality of the program to the mission, needs, and purposes of the university and the college/community campus. Include how the program is integrating (or planning to integrate) intentionally designed opportunities for students to develop the four core competencies (Effective Communication; Creative and Critical Thinking; Intercultural Fluency; and Personal, Professional, & Community Responsibility). (2500 characters or less)**

The Millwright program provides workforce development for several key industries in Alaska, including mining, oil and gas, and fisheries. Industry partners indicate that aging workforces in their industry will result in high demand for replacements as those workers retire in the next few years. This is an important part of UAA's mission to transform lives and communities in Southcentral Alaska. Students learn Personal, Professional, & Community Responsibility as they train to perform precision work in job sites worked by specialists in numerous technical fields (program SLO 3). They also learn creative and critical thinking as part of the problem-solving aspect of their training and work (SLOs 1 & 2). Students also learn to communicate technical information in their work environment as necessary to complete job assignments (SLO 4).

- 3. Demonstrate program quality and improvement through assessment and other indicators.**

a. Program Student Learning Outcomes Assessment and Improvement Process and Actions

i. OEC Millwright

- *1) Perform job related tasks following industry-recognized safety practices and techniques;*
- *2) Analyze, set-up, and operate mechanical equipment to perform efficiently and accurately;*
- *3) Demonstrate professional behaviors and attitudes when working alone or as a member of*

a team; 4) Clearly communicate technical information and data verbally, in writing, mathematically, and visually when required to complete job assignments.

Describe your key findings for these outcomes. (3000 characters or less)

Our students must perform and pass performance evaluations throughout the year which are designed for each relevant module. This includes, but is not limited to, safety, proper use of hand and power tools, packing and seals, initial equipment installation, leveling and locations from blueprints, couplings, various types of pumps, compressors and turbines, hydraulics, pneumatics, gearboxes and gears, precision leveling and alignment and vibration analysis. These performance evaluations include all of the student learning outcomes.

Describe actions taken to improve student learning for these outcomes. (3000 characters or less)

We are bringing key guest lecturers and experts in various relevant fields to demonstrate proper use and techniques of the machinery and equipment used in their specific industry.

Describe evidence that these actions are working. (3000 characters or less)

Several of our students have been hired by these lecturers.

- b. Demonstrate program quality and improvement through other means, for example, maintaining specialized accreditation, using guidance from advisory boards/councils, responding to community partners and local needs, maintaining currency of the curriculum, implementing innovative program design, intentionally integrating high-impact teaching and learning practices into the program, and meeting indications of quality in distance education, such as the C-RAC Standards. (3000 characters or less)**

The Millwright program recently modified its NCCER-based curriculum in response to consultation with supported industry employers who wanted to see some different skills in the graduates they hire. This adjustment was driven by industry employer demand and was made possible by the close relationships maintained between the program and industry partners. As distance education modalities introduced new challenges in the delivery of portions of this hands-on curriculum, PWSC experimented with a variety of strategies to improve student learning. The most successful of these was the introduction of a shop assistant to direct student activity at the distant end from the primary instructor. Student productivity is up, and shop inspections report increased effectiveness of safety practices.

- 4. Demonstrate student success and the closing of equity gaps.**
 - a. Analyze and respond to the disaggregated data in the data sheet for your program. Provide clarifications or explanations for any positive or negative trends indicated by the data, and discuss what you are doing to close any equity gaps. The Student Success program review**

metrics are Junior Graduation Rate, Associate Graduation Rate, Semesters to Degree – Graduate Programs, and Course Pass Rates by Course Level. (3000 characters or less)

Data show strong completion rates in 2022 for students in all demographics other than African American, with marked improvements over last year for Alaska Native/American Indian, Asian, Hispanic and Pacific Islanded demographics. In previous years, some cohorts were all male students, but in the current cohort, we have recruited a female student to the program. Marketing efforts specifically geared to close equity gaps in the current academic year across PWSC programs appear to have benefited the Millwright program along with others. PWSC will double down on this marketing strategy to continue progress and to address lagging success rate in the African American demographic.

- b. Provide evidence of the overall success of students in the program. For example, you might talk about the percent of students in post-graduation employment in the field or a related field, the percent of students who go on to graduate school or other post-graduation training, and/or the percent of students who pass licensure examinations. You might also give examples of students who have been selected for major scholarships or other competitive opportunities. [Please do not use personally identifiable information.] (3000 characters or less)**

In recent Millwright program cohorts, all of the graduates who sought employment in the field or in related fields were able to secure employment with strong starting salaries. For example, graduates who are employed with Hecla Greens Creek Mine report making in excess of \$80,000 in their first year out of the program. Some graduates from earlier cohorts report earning in excess of six figures just a few years into their careers as millwrights as they move up to higher pay grades in their companies as industries strive to replace retiring workers. PWSC is spreading the word of these success stories to drive increased interest in a job field where a one-year OEC can lead to a living wage right out the gate. Of students not seeking employment after completion, the primary reason is continued study in related fields, such as Marine Tech, on the way to an AAS in Technology, Engineering or to the fact that they were already employed. For example, we have Coast Guard personnel who take program courses for professional development in their existing careers, but they have no need to seek new employment while still serving. We have also had an engineer from Alyeska take our program in order to become a pump tech to increase his salary.

5. Demonstrate demand for the program.

- a. Analyze and respond to the data in the data sheet for your program. Provide clarifications or explanations for any positive or negative trends indicated by the data, and discuss what you are doing to improve. The Demand program review metrics are Ratio of Out-of-Discipline Credit Hours to Total Credit Hours, Number of Program Graduates Who Continue Education, Number of Program Graduates Who Return to UAA to Pursue an Additional Program, and Gap**

between Job Openings and Degree Completions. (Note: Gap between Job Openings and Degree Completions not required for AY23 Program Reviews.) (3000 characters or less)

In recent years, Millwright cohorts have run between 80 and 90% full, showing strong student demand. Industry employers in mining and processing report that their aging workforce will require a steady influx of entry-level millwrights in the coming years, so the outlook for industry demand is good. Out-of-discipline credit hours are attributable to two sources: dual credit students who take one or two courses while still in high school and subsequently major in something else, or already employed non-traditional students who are taking portions of the Millwright program as professional development in their current job.

6. Demonstrate program productivity and efficiency.

Analyze and respond to the data in the data sheet for your program. Provide clarifications or explanations for any positive or negative trends indicated by the data, and discuss what you are doing to improve. The Productivity and Efficiency program review metrics are Five Year Degree and/or Certificate Awards Trend, Student Credit Hours per Full-Time Equivalent Faculty, and Full-Time Equivalent Student per Full-Time Equivalent Faculty. (3000 characters or less)

Aggregate course pass rates are above 90% (93% full-time and 99% part-time), a significant improvement over 2021 aggregate pass rates (78% full-time and 67% part-time). This improvement may be attributable in part to decreased crowding in the shop, inclusion of supplemental instruction, and increased student support across PWSC's programs. OEC completion rates reflect cohorts of the full OEC program that are capped at ten. Thus, the 8 certificates awarded in 2022 reflect an 80% program completion rate for that OEC cohort even when compared to a 100% full cohort. The SCH/FTEF and FTES/FTEF numbers reflect the program cohort students plus non-degree-seeking students taking only parts of the program via dual-credit partnerships and for professional development. These partnerships become prime recruiting grounds for students who have completed part of the program via dual-credit or as professional development to come complete the program at PWSC as part of an OEC cohort. Some dual credit students have completed the OEC while still in high school, while also using dual credit to take GER courses in conjunction with their high school core curriculum. As a result, we have seen students complete the OEC while in high school and complete remaining requirements for an associates degree within one semester after high school graduation, then enter the workforce with two post-secondary credentials only one semester after completing high school.

Optional: Discuss the extent to which, if any, extramural funding supports students, equipment, and faculty in the program. (2500 characters or less)

Currently, Hecla Greens Creek Mine supports students with two full scholarships and two paid apprenticeships for program students per cohort. Dual credit students also have access to funding from the City of Valdez and an American Rescue Plan grant to offset the cost of tuition. Program faculty and PWSC administration are currently researching additional partnerships and grant opportunities, including funds for improvements to the shop facilities. The program also seeks out site visits and guest lecturers working in a variety of industries in order to provide additional expertise to student instruction and also to introduce our students to prospective employers while still in the program. Many of these companies have donated equipment to our program.

- 7. Assess program distinctiveness, as well as any duplication resulting from the existence of a similar program or programs elsewhere in the University of Alaska System. Is duplication justified, and, if so, why? How are you coordinating with UAA's community campuses and the other universities in the system? (2000 characters or less)**

The Millwright program at PWSC is the only Millwright program in the UA system. That fact is one of the reasons the program is important to filling millwright jobs in Alaska. There is some overlap in particular skills, for example, such as welding, but those skills are taught in this program within the contexts in which millwrights can expect to perform such skills in their jobs, not in competition with workers whose primary job function is welding. Many jobs for millwrights are in mining and other production industries with significant milling machinery, but millwrights are also employed in other industries where maintenance of equipment such as conveyors and pumps is essential. Millwright program students learn to work with all of these skills and more, and they are able to integrate skill sets to perform complex ranges of functions. This broadly-applicable set of skills gives Millwright program graduates flexibility in employment options and career progression.

- 8. Assess the strengths of your program and propose one or two action steps to address areas that need improvement. (3500 characters or less)**

One of the great strengths of the Millwright OEC program is the immediate employability in high-paying jobs after a one-year program. The program provides workforce development to several key industries in Alaska, including mining, oil & gas, and fisheries on the processing end. Our close ties to industry partners, including the use of their own subject-matter experts as guest lecturers, give our students direct contact with the employers in the field while still in the program. Demand for skilled labor in these industries is increasing as aging workers approach retirement. As a one-year OEC, it is also well situated to be incorporated into an associate degree program with the inclusion of another technical OEC and GER courses.

Proposed action steps:

1. Continue to seek improvements to shop facilities.
2. Continue to seek additional external funding for the students and the program in the forms of scholarships, paid internships, donations, and grants.

After completing the Program Section above, the program review committee chair should enter their name, date, and email this form to the dean, copying the committee members. If the program is fully delivered on a community campus, copy the appropriate community campus director(s).

Committee chair first name last name: Dennis Eastman

Date: 3/21/2023

END OF PROGRAM SECTION

DEAN SECTION (Due on April 1)

If the program is fully delivered on one or more community campus, the dean should consult with the director(s) of the campus. After completing the Dean Section below and entering their name, the dean should email this form to the committee, and to uaa.oaa@alaska.edu. If the program is delivered on a community campus, copy the appropriate community campus director(s). The program has one week to provide an optional response to the Dean Section using the Program Optional Response Section of this form.

1. Evaluation of Progress on Previous Recommendations

For each recommendation from the last program review, indicate if the recommendation has been met or has not been met and provide commendations and guidance as appropriate. (2000 characters or less for each recommendation)

Recommendation 1: Work diligently to find an alternative to the cramped and limited instructional shop space. Recommendation has been met.

This recommendation has not been met directly. However, due to relocations of other programs, there is now more space to safely and more effectively teach the program.

Recommendation 2: Explore options for alternative delivery methods, incorporating existing secondary partnerships, apprenticeships, and/or partial distance delivery alternatives to expand the program's reach. Recommendation has been met.

It is my opinion that we have met this recommendation. We have seen an expansion of both scholarships and apprenticeship opportunities. A number of partnerships have been built up with local industry and there are now at least some distance delivered courses.

Provide your analysis of #2-8 below, based on the data provided and the program's responses above.

2. Centrality of the Program. (1750 characters or less)

The program has a very important, and unique, niche for the local community and different mineral extraction industries. The program, unique in the UA system, also addresses several core competencies even though this is an OEC. This short-term training focuses on the Personal, Professional, and Community Responsibility throughout their instruction. Communication is critical and another focus. Finally, the job skills require significant critical thinking and problem-solving.

3. Program Quality and Improvement (1750 characters or less)

Students consistently meet or exceed faculty expectations. Additionally, the students are often brought back from industry to act as lecturers or guest lecturers to provide students instruction using the most current industry standards.

4. Student Success and the Closing of Equity Gaps (1750 characters or less)

There is a wide variety of student demographics that have taken the program of study. The only area that I believe could be enhanced would be to continue to try and attract more female students

into the program. It should also be noted that students are now starting upwards to \$80,000 a year and there is a high placement rate.

5. Demand (1750 characters or less)

The program's courses are 80% full. There is a local demand which is the goal associated with the Community Campuses. The consistent need is coming from an aging industry workforce around oil, gas, and mineral extraction. However, I believe that we could see an increase in numbers if we were to advertise statewide the Millwright program.

6. Productivity and Efficiency (1750 characters or less)

Millwright has seen a sharp increase in student course pass rates, rising above 90%, compared to 2021. I agree with the faculty that the shift to provide additional supplemental materials for the course and additional student support as a whole through PWSC. There is also an 80% completion rate for the program, which is high. The program has also been working with the local school district to improve partnerships, which is now allowing high school students to complete the OEC before graduating high school.

7. Duplication and Distinctiveness (1750 characters or less)

As stated by the faculty, the Millwright program is the only one of its kind in the UA system.

8. Strengths and Ideas for Moving Forward (1750 characters or less)

I agree with the faculty. One of the greatest strengths of the program is the employability of the students once they graduate. I would also state that a new strength is the coordination with the local school district. Allowing high school students to complete an employable skillset and a college credential is an amazing strength.

Dean's Final Evaluation

I commend the program for: (number and list the specific commendations in the narrative box, 1500 character limit)

I commend the faculty and staff of the Millwright program for their diligence in improving the course pass rate. Additionally, the work toward dual enrollment and program completion for students finishing high school should specifically be called out. This is a great achievement and helpful to the community at large.

I recommend that the program: (number and list the specific recommendations in the narrative box, 1500 character limit)

I have 3 recommendations, the first two are in agreement with the faculty request above:

1. Continue to seek improvements to shop facilities.
2. Continue to seek additional external funding for the students and the program in the forms of scholarships, paid internships, donations, and grants.

6/27/2022

3. Expand the visibility of the program to the state at large. This would allow for more industry partners that could support the program.

Dean's overall recommendation to the provost: Continuation -- Program is successfully serving its students and meeting its mission and goals. No immediate changes necessary, other than regular, ongoing program improvements.

If an Interim Progress Report is proposed, recommended year: N/A

If a Follow-up Program Review is proposed, recommended year: N/A

Proposed next regular Program Review: AY2028

After completing the Dean Section above, the dean should enter their name, date, and email this form to the committee, and to uaa.oaa@alaska.edu. If the program is fully delivered on a community campus, copy the appropriate community campus director(s). The program has one week to provide an optional response to the Dean Section using the Program Optional Response Section below.

Dean first name last name: Raymond Weber

Date: 4/4/2023

END OF DEAN SECTION

PROGRAM OPTIONAL RESPONSE SECTION (Due within one week of receiving dean's review)

Programs have the option to submit to the provost a response to the dean's evaluation within one week of receiving the dean's review, using the narrative box below. Please indicate whether or not you will submit an optional response below.

Are you submitting an optional response? If yes, add your response below, enter your name and date, and follow the guidance below for submission. If no, enter your name and date, and follow the guidance below for submission. No

Optional Response: (10,000 characters or less)

After completing this section, the form should be submitted to uaa.oaa@alaska.edu, with a copy to the dean. If the program is fully delivered on a community campus, copy the appropriate community campus director(s) as well.

Committee chair first name last name: Dennis Eastman

Date: 4/4/2023

END OF PROGRAM OPTIONAL RESPONSE SECTION

PROVOST SECTION (Due on August 1)

After completing, signing, and dating the Provost Section of this form, email the completed form to the program review committee and dean, with a copy to uaa.oaa@alaska.edu for posting. If the program is delivered on a community campus, copy the appropriate community campus director(s) as well.

Provost's commendations, additional or adjusted recommendations, if any, and other general comments (3000 characters or less):

I agree with the dean's commendations. In addition, I would like to commend the program's success at recruiting students from wide variety of backgrounds and placing them into positions quickly. I also wish to affirm that the move away from NCCER was the correct choice and I continue to support that decision. I also agree with the dean's recommendations. I am adjusting recommendation #1 and asking the program seek options and possible partnerships for facilities. Additionally, I also recommend that the program develop a plan for long-term instructional continuity planning.


As I did last year in the Program Review process, I am asking programs to think about how they put students first. This includes continuing to monitor any courses with high DFW rates and seeking out strategies for remediation as needed. It also includes continuing to think about what it means to embrace diversity and inclusivity on the course and program level and to demonstrate this in your particular program(s). This could be through the use of proven, high-impact practices at the program level, or through proven pedagogic strategies such as designing assignments using Transparency in Learning and Teaching (TILT). It can also be through implementing OER and ZTC materials, particularly where course materials can be more reflective of diverse perspectives, or by using the same materials across all sections of a course. Finally, I am asking that every program identify at least one opportunity for students to develop each of UAA's core competency within the program's curricular and/or co-curricular offerings.

Provost's decision: Continuation -- Program is successfully serving its students and meeting its mission and goals. No immediate changes necessary, other than regular, ongoing program improvements.

Interim Progress Report year: N/A

Follow-up Program Review year: N/A

Next regular Program Review: AY2028

Provost's signature: 

Date: 5/12/2023