Academic Affairs
University of Alaska Anchorage

3211 Providence Drive
Anchorage, AK 99508-4614
T 907.786.1050, F 907.786.1426

Date: March 9, 2020

To: Cathy Sandeen, Chancellor

From: John Stalvey, Interim Provost

Cc: Denise Runge, Dean, Community & Technical College
Joel Condon, Director, Building Technologies Division
Albert Grant, Associate Professor, Occupational Safety and Health, Anchorage
Chris Boswell, Adjunct Instructor, Occupational Safety and Health, Prince William Sound College
Dan O'Connor, Director, Prince William Sound College
Susan Kalina, Vice Provost for Academic Affairs
Claudia Lampman, Vice Provost for Student Success

Re: **AY20 Expedited Program Review Findings – Occupational Safety and Health AAS/BS**

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

Recommendations

My recommendation is to accept the decision and recommendations of the dean with the additional commentary that the program continue to use the industry standards to guide curriculum and should not pursue accreditation until such time that accreditation becomes mandatory. The next Program Review will be included in the regular ongoing program review schedule.

Decision

Recommend Continuation

UAA Community & Technical College
University of Alaska Anchorage

3211 Providence Drive, SSB 214
Anchorage, Alaska 99508-4614
tel: 907 786-6400
www.uaa.alaska.edu/ctc/

Date: February 2, 2020

To: John Stalvey, Interim Provost

From: Denise Runge, Dean

Re: AY20 Expedited Program Review Findings

Program/s in this review: Occupational Safety & Health (AAS, BS)

Specialized accrediting agency (if applicable):

Campuses where the program is delivered: Anchorage**,** PWSC via eLearning

Members of the program review committee:

- Joel Condon, Director
- Albert Grant, Associate Professor
- Chris Boswell, Instructor (adjunct), Prince William Sound College

Centrality of Program Mission and Supporting Role The Occupational Safety & Health programs are well-aligned with the mission of UAA and CTC. The program meets a clear workforce need, preparing safety professionals for several industries inside and outside of Alaska. It complements, but also fills an important gap between related UAA degree programs in Engineering, Construction Management, and Process Technology. The program's graduates are employed across diverse industries including resource extraction, construction, government, and healthcare at attractive salaries; most remain in Alaska and continue to build their careers here.

Program Demand (including service to other programs), Efficiency, and Productivity Demand for the program has declined, but at a rate lower than the overall decline in UAA enrollment, while both efficiency and productivity have risen. As noted by the faculty in their review, the OSH program has experienced a modest decline in number of majors, from 87 in 2013 to 78 in 2019, about a ten percent drop. During the same period, the number of graduates has remained stable, presumably due to the addition of the BS degree. Given the primary industries that hire OSH graduates in Alaska, including resource extraction, production and construction, the modest decline during the recent period of economic recession is not surprising. With careful scheduling, a reduction of one full time faculty position, and excellent support for student progress, the program has managed to improve its efficiency and productivity while dealing with a modest enrollment decrease. The program currently covers its instructional costs, with $222.9 tuition dollars per SCH at a cost of only $203.5 for a ratio of 1.09. Overall during the review period, the program has seen a slight decline in enrollment, and some excess or unused capacity, but with relatively low costs.

Program Quality, Improvement and Student Success Quality appears to be high. From the outset, program faculty created the new BS degree with an eye toward the standards of accreditation required by ABET. While resource constraints prevent us from beginning the process to seek accreditation at this time, the program continues to be structured, and the faculty chosen based upon, the ABET standards. Advisory board members continue to provide strong positive feedback for the program, and provide opportunities for students and graduates in the form of internships, contacts within related professional organizations, and notices of job openings. Many efforts within the program remain focused on student success. Industry representatives helped convince the university to add a BS option to the existing AAS degree, and in 2019 the first graduates completed the new program. Fully online courses, offered collaboratively with Prince William Sound College, afford working students maximum flexibility. A Student Success Advisor and the full time faculty member provide intrusive advising and mentoring for enrolled students.

Program Duplication / Distinctiveness UAA offers the only AAS and the only BS in Occupational Safety & Health within Alaska. Both the AAS and the BS can be completed 100% online. The program cooperates with faculty at PWSC, whose online lower division sections comprise approximately thirty percent of the total course offerings.

Commendations and Recommendations Commendations: The program is commended for its previous efforts to develop and deliver its courses online in order to accommodate working students' schedules. Further, program faculty are commended for their collaborative course-sharing arrangement between Anchorage and Valdez campuses. Recommendation: The program should continue to explore accreditation options and gather data in anticipation of a future application for accreditation.

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

Submission date: February 7, 2020

Program/s in this review: Occupational Safety and Health (OSH) AAS & BS

Specialized accrediting agency (if applicable): N/A

Campuses where the program is delivered: University of Alaska Anchorage

Members of the program review committee:

Joel Condon, Director/Associate Professor, ANC
Al Grant, Associate Professor, ANC
Chris Boswell, Adjunct Professor, PWSC

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

Occupational Safety and Health (OSH) professionals protect people, property and the environment. The OSH program provides comprehensive preparation for individuals to become highly trained and highly paid safety professionals in Alaska and worldwide. Alaska's natural resources account for the bulk of its wealth. Industries such as oil & gas, mining, fisheries, and construction are high risk and high hazard, as is the direct work required to extract and process these resources. These risks are exacerbated when coupled with the inherent exposures/hazards encountered when working in our Arctic/polar environment. Alaska employers recognize the devastating consequences of accidental losses in the workplace, both in terms of the financial burden but, more importantly, the toll it takes on their most important resource, our people. Employers also understand the need to mitigate and control workplace exposures, manage safety systems, programs and related activities, and interpret and ensure compliance with an array of regulatory requirements such as the Occupational Safety and Health Administration, AK Occupation Safety and Health Division, Environmental Protection Agency, Federal Motor Carrier Safety Administration, and AK Department of Environmental Conservation, to name a few. Additionally, more and more contracts require safety professionals to have nationally recognized professional certifications, leadership, collaboration, teamwork and change management skills as well as functional computer skills and proficiency. The OSH program includes a strong emphasis on each of the skills and competencies mentioned above. The program also appeals to a diverse set of students, including full-time and part-time students who are recent high school graduates, experienced working professionals and veterans. The OSH program continues to meet industry demands to educate and prepare safety professionals to improve safety and operational effectiveness in business operations statewide. Graduates of the OSH AAS BS program are prepared with the knowledge, understanding, skills, and confidence to address the unique challenges faced wherever we work throughout Alaska and the Arctic/polar region. This program prepares local graduates to effectively compete for well-paying and professional level safety positions across the State and worldwide. Additionally, the OSH program provides interested students with the opportunity to earn an OSH degree locally, thus satisfying a critical need of Alaska employers and industries.

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

Following is an analysis of each OSH program data point provided by UA Institutional Research (IR).

Seven year degree and/or certificate awards trend

Of special interest in this data point is the appearance of three baccalaureate graduates in 2019. This is the result of a long process to establish a baccalaureate degree for OSH. The OSH program was granted special permission from the Board of Regents to proceed in developing the program in 2017 at a time when the university was facing budgetary reductions and undergoing contraction through the prioritization process. It was recognized that Occupational Safety and Health plays a crucial role in the Alaska workforce. The Alaska workforce is engaged in many hazardous activities associated with resource extraction and requires the expertise of OSH professionals to minimize the high cost of workplace injuries.

It should also be noted that statistics from the World Population Review website show an overall decline in Alaska's population and a 3.2% decline in the Anchorage population since 2015. The *2017-2018 Fact Book* published by UAA Institutional Research shows the student headcount at UAA has declined by 12% from 2013 to 2017 (p.14). Even with these declining demographic trends, the OSH program shows a general increase in degree awards.

Credits per Degree (Average Credits Earned)

Both the AAS and BS OSH programs show a higher than minimum accumulation of credits needed for the respective degrees. This could be attributed to the fact that many OSH students are non-traditional and veterans, having come to the OSH program after experimenting with other programs or careers before realizing that OSH offers a clear career path with earning potential of $41.80 per hour.

Seven year majors or program enrollment trend

The decline in OSH enrollment is consistent with the general demographic trend from 2013 – 2019. The *2017-2018 Fact Book* published by UAA Institutional Research shows the student headcount at UAA declined by 12% from 2013 to 2017 (p.14). The decline from 87 OSH majors in 2013 to 78 majors in 2019 represents a 10% decline in enrollment which is less than the overall decline in students enrolled at UAA.

Course pass rates

OSH students display consistently high pass rates, indicating a high level of engagement and strong commitment to succeed in their OSH studies. The elevated level of pass rates in upper division course work shows that, as students become more invested in their OSH education, they strive to achieve higher levels of success.

Internal demand

Although most students in the OSH program have declared it as their major, there is strong demand outside the program. OSH safety training was recognized by the Construction Management program as offering a superior course in construction safety and replaced their CM safety course with OSH A405, *Construction Industry Safety Management.* OSH courses are also taken as electives by students enrolled in Process Technology, Logistic, Nursing, Technology, and Fire Sciences.

Seven year Student Credit Hour (SCH) production trend

As mentioned earlier, IR data shows a 12% decline in UAA student enrollment from 2013-2017 (*2017-2018 Fact Book*, UAA Institutional Research, p.14). This decline is reflected in the OSH SCH production numbers.

It is important to note that 2017 marked the introduction of a baccalaureate degree into the OSH program. SCH jumped 18% with the introduction of this new degree. Creation of a baccalaureate degree was a major accomplishment that required the investment of substantial resources.

Student Credit Hours per Full Time Equivalent Faculty
A 50% reduction in the number of Full Time Equivalent Faculty in the OSH program has led to more SCH being delegated to adjunct faculty and thus a reduction in Student Credit Hours per Full Time Equivalent Faculty.

Enrollment per Full Time Equivalent Faculty
Again, the loss of half the OSH FTEF in FY2017 has meant that more students enrolled in the program are being taught by adjunct faculty.

Full Time Equivalent Students per Full Time Equivalent Faculty
The loss of half the OSH FTEF in FY2017 has meant that more Full Time Equivalent Students are being taught by adjunct faculty. The ratio of FTES to FTEF has remained relatively constant since this change, indicating that the program is stable and functioning effectively even with a 50% reduction in Full Time Equivalent Faculty.

Cost per Student Credit Hour
In 2015 there was an increase in FTEF to develop the baccalaureate degree. In 2017, OSH lost 50% of the full time faculty. The result was that the cost of maintaining existing faculty and resources declined. Hiring more adjunct faculty to replace FTEF resulted in lower expenditures for instructional personnel.

Tuition Revenue per Student Credit Hour
Tuition costs have been increasing at a rate of 5% per year since 2015 according to UA data. IR data related to the OSH program is relatively consistent with that trend.

External Demand
The graph provided by UAA Institutional Research indicates that a significant number of graduates with an OSH AAS degree go on to earn an advanced degree. This is a main reason why the baccalaureate degree was developed. Also, demand from the safety professional industry helped convince the Board of Regents that development of the BS was needed.

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

The OSH program, the only such program in the State, prepares graduates to recognize, evaluate, and control workplace hazards that may cause injury, illness, or disease. The general education and core occupational safety and health courses provide students with the academic foundation needed to pursue a successful career in safety, obtain professional certifications (OHST, CHST, ASP, CSP, etc.), and pursue advanced studies in any of the occupational safety and health disciplines. Graduates will be immediate resources to private and public employers across industry segments to reduce potential safety, health and environmental exposures, risk, and losses. The core curriculum was developed to provide the technical and professional knowledge needed to pursue careers in the occupational safety and health field, meet industry demand/request, and to achieve Accreditation Board for Engineering and Technology (ABET) accreditation. The AAS degree curriculum was revised to provide the core foundation needed in the profession and to accommodate suggestions from the OSH Advisory Committee; the curriculum/courses were then "stacked" into the BS OSH using a 2+2 model that created a seamless pathway and smooth transition for students. Safety professionals with an earned baccalaureate degree in occupational safety and health continue to be in demand statewide. The OSH program was designed to prepare graduates for a rewarding career in the occupational safety and health profession and related disciplines. Student advising is consistently and effectively provided by the Construction Technologies Division's Student Success Advisor and full-time faculty. The entire program is delivered online via Blackboard. Throughout the curriculum, OSH students are engaged in the following high-impact educational practices: collaborative assignments and projects through study groups, group assignments/projects, internships and a capstone course focusing on the economic value of safety. OSH

students are also provided with direct opportunities to work on and participate in the following local professional development events and related activities: Alaska Governor's Safety and Health Conference, American Society of Safety Professionals (ASSP) Safety Summit, Alaska Associated General Contractors (AGC) Annual Conference. At these events, OSH students are involved in planning and logistics, they moderate sessions and may even be selected to present a professional development session; they also participate as attendees. OSH graduates continue to earn third-party professional certifications (CSP, ASP, OHST, CHST, etc.), thus validating the quality of the OSH curriculum and overall program.

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

The OSH program is collaboratively delivered online with Prince William Sound College and discussions are ongoing to determine how both degrees can be delivered across other UAA community campuses via eLearning.

5. Summary Analysis (500 words or less)

The OSH program is structurally strong in that it was developed using ABET recommended student learning outcomes which establishes the core program foundation needed to eventually pursue ABET accreditation. The program has an extensive industry advisory group that includes members employed by large corporations such as BP, Conoco Phillips, and Arctic Slope Regional Corporation. The OSH program is good for the workforce, environment, and the economy…it's good for Alaska. It is consistently reported that the return on investment for safety is as high as a six dollar return on every dollar invested. To increase program capacity, we should develop an outreach plan that focuses on program and career awareness and development for secondary schools along with increased efforts to communicate with business and industry partners about the value-added benefits of hiring UUA OSH graduates. We must monitor and increase OSH program staffing to ensure we maintain, strengthen and increase our capacity and ability to enhance student success.