March 23, 2020

To: President Jim Johnsen
Fr: Chancellor Cathy Sandeen
Re: Expedited Program Review Recommendations

Background
As requested, the University of Alaska Anchorage has undertaken an expedited program review as a result of budget cuts imposed by the governor and legislature. I have closely read the expedited program reviews that resulted from this process, reports and recommendations from the deans and the provost, as well as additional responses from some programs. I have also reviewed nearly 200 emails and letters as well as verbal input provided at approximately 20 meetings, including a large public testimony session. I have consulted with the chancellors at UAF and UAS regarding their recommended program changes.

I want to emphasize that all programs at University of Alaska Anchorage are high quality. All programs produce graduates who are prepared to address specific workforce needs. Our faculty are excellent and deeply committed to the UAA mission of teaching, scholarship, and service. Our programs provide a unique and vital sense of community, a sense of “home,” for faculty, staff, and students in those programs. These decisions are extremely difficult and in many cases heartbreaking. While we have been transparent, data-informed, and mission-driven as much as possible throughout this process, at the end of the day, these are judgment calls.

I am providing you with these recommendations, not because I want to make these decisions, but because I am called to do so given the situation the University of Alaska confronts. I believe these are the best decisions under the circumstances. UAA will contract and become smaller with a more focused mission. Much is retained under my recommendations and I am confident that this path forward will allow UAA to sustain excellence and the ability to continue to serve the region and the State of Alaska. UAA will remain Alaska’s vibrant open access urban/metropolitan university.

Please note I will continue to encourage all UAA programs, on all our campuses, to become more streamlined and efficient in producing graduates to meet workforce needs, while maintaining academic quality as defined by the faculty.

I realize these are recommendations only and that you will develop your own proposal and that the University of Alaska Board of Regents will make final decisions.

(Continued, next page)
Decision
I concur with the recommendations of Interim Provost John Stalvey dated March 9, 2020, with the following two exceptions:

**Anthropology (MA)**
Changed to Continued Review

**Marketing (BBA)**
Changed to Continuation
Appendix: Faculty Reductions from Expedited Academic Program Review

Community and Technical College

CTC is reducing by 3 lines following the program review outcomes. Two retirements (not replacing), Aviation and Culinary & Hospitality in FY21. For Fiscal Year 2022 we will need to reduce by an additional faculty member.

College of Engineering

One tenure-track non-replacement in EE in FY21 and 2 tenure-track non-replacement of anticipated retirements (1 in CE and 1 in CS&E) in FY22.

College of Business and Public Policy

The cost savings is through not replacing faculty. One term faculty in Logistics and another two tenure-track faculty in Information Science & Decision Science (MIS).

College of Arts and Sciences

<table>
<thead>
<tr>
<th>Program</th>
<th>Tenure-Track Reductions after 1 year</th>
<th>NTT Reductions after 1 year</th>
<th>Tenure-Track Reductions after 2 year</th>
<th>NTT Reductions after 2 year</th>
<th>Total RIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology MA</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Art BFA</td>
<td>0</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
</tr>
<tr>
<td>CWLA MFA</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>English MA</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Environ &amp; Society BS</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Journalism BA</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Languages BA (Chinese)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sociology BA-BS</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Theatre BA</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>1.5</td>
<td>15</td>
<td>1</td>
<td>20.5</td>
</tr>
</tbody>
</table>

The decreases in CAS are particularly large because they also include addressing the structural debt that the college has been carrying the past two FY.

College of Health

One non-replacement of a tenure-track faculty in Legal Studies and one non-replacement of a tenure-track faculty in Justice.

Total number of faculty lines reduced: 31.5.
Total estimated decrease is $3.25M from eliminated faculty lines outlined above.
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
    Brian Bennett, Professor, Architectural & Engineering Technology
    Darryl Jordan, Assistant Professor, Construction Management
    Susan Kalina, Vice Provost for Academic Affairs
    Claudia Lampman, Vice Provost for Student Success

Re: AY20 Expedited Program Review Findings – Architectural and Engineering Technology AAS

I have reviewed the dean’s findings and the completed Expedited Program Review Template for the Architectural and Engineering Technology AAS. 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 review its course rotation and semester offerings, reduce the number of sections offered each semester, and increase course capacity to reduce cost and increase revenue. An interim progress report on all recommendations is due to the dean by March 1, 2021. The dean will submit a review along with the program’s interim progress report to the provost by April 1, 2021. A follow-up Program Review will be conducted in AY22.

Decision

Recommend Continued Review
Date: February 2, 2020

To: John Stalvey, Interim Provost

From: Denise Runge, Dean

Re: AY20 Expedited Program Review Findings

Program/s in this review: Architectural & Engineering Technology (AAS)

Specialized accrediting agency (if applicable): none

Campuses where the program is delivered: Anchorage

Members of the program review committee:

- Joel Condon, Director
- Brian Bennett, Professor
- Darryl Jordan, Assistant Professor

Centrality of Program Mission and Supporting Role The program aligns fairly well with the mission of both the CTC and UAA. The program prepares its graduates to either seek immediate employment in architectural or construction firms, or to continue on for a degree in Architecture out of state. The program plays an important supporting role for the AAS and the BS in Construction Management. AET courses comprise 16 of the required credits for these CM degrees.

Program Demand (including service to other programs), Efficiency, and Productivity Demand for the program had declined previously, leading to suspension and dramatic restructuring; the revised program has attracted a small number of new applicants in its first year, and experienced changes that are leading to lower costs. As the program notes, the state experiences nearly 60 openings for Architects per year, which is evidence of a potential demand for the program.

During the review period, the number of majors declined from 78 in 2013 to just 16 in 2019 during the teach-out of its previous version. The hope was that the revisions will allow it to become more efficient and productive if enrollment rebounds to levels seen in the early 2010s. In 2019 the program realized only $181.5 tuition dollars per SCH at a cost of $375.6 for a ratio of 48.3%, only slightly better than its ratio of 41.3% in 2015. However, as noted when the program sought approval to re-emerge from Suspension, it now uses mostly courses which are also taken by students in other programs such as Construction Management and Art. Furthermore, the program previously had two full time faculty plus some adjuncts, but one has since retired and was not replaced, and the CM faculty now teach a few of the AET courses. Overall the program evidences excess or unused capacity, and relatively high costs.
Program Quality, Improvement and Student Success  Quality will be difficult to assess until the program has several years' worth of data. Previously the program did have success in placing graduates, but as noted in the report the type of career opportunities formerly offered are generally no longer available. It is noteworthy that 70% of the (former) program’s graduates did go on to enroll in additional post-secondary education. Recent improvement efforts, especially those centered around student success, have the potential to positively impact the program. The average number of AET graduates hovers around nine per year, and historically the majority of AET students have taken between three and five years to complete their degrees. Additionally, the average number of credits per degree had declined, down to 67 per student from a high of 96 in 2016.

Program Duplication / Distinctiveness  Duplication: both UAS and UAF offer similar programs. Distinctiveness: UAA’s program is distinctive, due to its increased focus on the creative process, problem-solving, and the potential to articulate to an Architecture program.

Commendations and Recommendations  Commendations: The program is commended for incorporating industry feedback into its recent curricular revisions. The program is further commended for utilizing existing UAA courses to the extent possible in the revision, rather than creating new or stand-alone courses. Recommendations: The program should engage in efforts to recruit students, particularly those from secondary schools that offer drafting or construction programs. The program should continue to use existing courses and faculty from related programs to keep costs low. The program should work with Institutional Research to try to understand the post-award enrollment patterns of its students. Finally, the program should proactively monitor the progress of enrolled students and offer support as needed to ensure they can complete their degrees.

Decision  Continued Review: the program is required to address specific issues and to undergo another review within the next two academic years.
Submission date: February 7, 2020

Program/s in this review: Architectural and Engineering Technology (AET) AAS

Specialized accrediting agency (if applicable): As a support program for Construction Management - American Council for Construction Education

Campuses where the program is delivered: University of Alaska Anchorage

Members of the program review committee:

   Joel Condon, Director/Associate Professor, ANC
   Brian Bennett, Professor, ANC
   Darryl Jordan, Assistant Professor, ANC

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

As a result of prioritization, the Architectural and Engineering Technology (AET) program was identified as a low enrollment program, in need of revision. In May 2016 a review team proposed two options: 1) use the program as a foundation for architectural studies and 2) develop a wide-ranging digital technologies program. Ex-Provost Gingerich rejected developing the program architecturally and instructed faculty to develop the digital technologies option. In October 2017, AET Professor Ellen McKay declined to pursue the redesign of the program stating, “[there] is no clear career path for students with an associate’s degree in digital technologies.”

Interim Provost John Stalvey, issued a directive in Aug. 2018 to make a curriculum revision, “that responds to state, industry, and local employer needs.” A meeting with industry representatives convened on Nov. 2, 2018 to discuss the issue.

Historically, the AET curriculum was oriented around training drafting technicians for the Architecture, Engineering, and Construction (AEC) industry. Industry representatives noted that such positions are losing relevance. Digital technology has made strident inroads into the AEC industry and the drafting work that once occupied drafting technicians is now largely handled by design professionals, from initial design to construction documents. While there is still a need for entry-level personnel, broader critical design thinking skills are now required. This shift in the industry and the corresponding decline in job openings is likely the cause of the decline in the number of students in the program.

Based on extensive analysis of WUE (Western Undergraduate Exchange) accredited architecture programs and members of the Coalition of Community College Architecture Programs (CCCAP), the AET program was revised to reflect curriculum typically found in the first two years of an architectural education, establishing an academic/career pathway for students interested in continuing pursuit of a bachelor’s degree and professional licensure.

Though use of design and modeling software remains a strong part of the AET curriculum, a more
comprehensive understanding of design strategies, and the ability to formulate solutions to complex
calculation problems, has been incorporated into the curriculum. It is becoming progressively more
important for industry participants to have more than a simple mastery of digital tools: tools that are
constantly changing as the technology evolves. The AEC industry is looking for individuals who are able
to embrace a variety of tasks, who are adept at independent, creative thinking, who know how the built
environment works, how to build it, and how to translate design ideas into buildable projects.

According to data from UA Statewide and UAA Offices of Workforce Programs provided to the Board of
Regents on September 5, 2018, there is a shortage of fifty-nine architects in Alaska each year. The revised AET
program seeks to rectify this disparity by providing preliminary architectural training that can be applied to
continued education and eventual architectural licensure.

The AET program provided the foundation on which the Construction Management (CM) program was built.
The two are still closely intertwined with 46% of the core courses required for the Bachelor of Science in CM
being AET courses. More than 50% of the core courses required for the Associate of Applied Science degree in
CM are AET courses.

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

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

**Seven year degree and/or certificate awards trend**
This IR data point shows that in 2015 enrollment in the AET program began to decline. This triggered
suspension of the program during the ensuing prioritization process. This also corresponds to the beginning of
Alaska’s regional recession in the summer of 2014. The upward trend in 2019 is a reflection of the impending
completion of the teach-out process at the end of spring semester 2019 and the push to get the remaining
students through the program.

**Credits per Degree (Average Credits Earned)**
As credits earned approaches the ideal target of 60 for an AAS degree, the downward trend indicates that
students are getting better advising. Starting in fall of 2017, Student Success Advisors were hired into the CTC
divisions. The 18% decline in credits from 2016 to 2017 and the 30% decline from 2016 to 2019 shows the
impact that quality advising has in keeping students focused on their educational objectives and carefully
tracking their progress.

**Seven year majors or program enrollment trend**
This decline clearly shows the impact that suspension had on the program. From a robust enrollment of 68
majors in 2014, enrollment was slashed 76% by the time teach-out was nearly complete. Enrollment began
dropping dramatically as suspension took hold with a precipitous 30% drop between 2016 and 2017 and a
49% drop between 2017 and 2018.

**Internal demand**
Around one third of the AET program is comprised of students from a different major. This strong outside
demand reflects the fact that the AET program and the Construction Management (CM) program are closely
linked. 46% of the core courses required for the Bachelor of Science in CM are AET courses. More than 50% of
the core courses required for the Associate of Applied Science degree in CM are AET courses.
Seven year Student Credit Hour (SCH) production trend
In 2017 the AET program was placed in suspension due to the prioritization process. It can be seen that until 2017, SCH averaged 1040.8. The program was relatively robust up to this point. After being placed in suspension, the credit hours fall precipitously, as would be expected.

Student Credit Hours per Full Time Equivalent Faculty
The Student Credit Hours associated with each Full Time Equivalent Faculty member is trending upward. This indicates that more student time is being invested in each faculty member’s class, meaning that class sizes are increasing and program efficiency is improving.

Enrollment per Full Time Equivalent Faculty
This data indicates that class sizes are increasing and that program efficiency is improving.

Full Time Equivalent Students per Full Time Equivalent Faculty
Interestingly, 2017 shows the highest ratio of students to faculty over the seven year period, the program’s most efficient year. This is the same year that the program was placed in suspension and the teach-out process began. From 2017 to 2019 the decline can be seen as suspension’s impact on the program.

Class Size (Average Class Size)
The upward trend shows increased program efficiency.

Cost per Student Credit Hour
The cost of maintaining the AET program has remained relatively constant over time. This indicates a stable program with established infrastructure and steady operational costs. The relatively high operational cost is partially due to the cost of computers and licenses for state-of-the-art digital software. It is also attributable to the nature of faculty who are highly experienced full professors.

Tuition Revenue per Student Credit Hour
Tuition costs have been increasing at a rate of 5% per year since 2015 according to UA data. The Institutional Research data numbers are relatively consistent with that trend.

External Demand
A significant majority of AET students continue their education after graduating with the AAS. The low pay and low annual openings indicate that the drafting profession is waning. This is consistent with anecdotal evidence from industry representatives who say that, due to advances in technology, the drafting side of production is being subsumed into the design phase, which is done by licensed professionals. It is assumed that AET graduates who are in the workforce find that opportunities for advancement are limited and that a degree in another field might provide a more bountiful career pathway.

Due to this trend, the AET program underwent a major revision which was implemented in fall 2019. The program is now focused on critical design thinking, preparing students for the many various tasks confronted in the design process. The curriculum is based on a typical set of classes found in the first two years of a professionally accredited architecture program. This establishes an educational/career pathway and cultivates skills needed to work as support personnel for design professionals.

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

The AET program has experienced a tumultuous three years since it was targeted for suspension during prioritization in 2016 and scheduled for teach-out by close of spring semester 2019. The review team that was convened in 2016 made, as its foremost recommendation, the following:
The AET program is caught in the paradox of providing curriculum that is valuable to the AEC industry without providing a professionally recognized degree to students. AET curriculum is similar to the first two years of an architectural education but does not lead to an architecture degree. Therefore:

Consider using AET as a foundation on which to build an architecture program.

In June of 2016, then Provost Sam Gingerich declared, “UAA will not pursue a pre-architecture program at this point in time, and this should not be part of the [...] proposal.” Provost Gingerich directed faculty to develop AET into a general, digital technologies program. Senior AET Professor Ellen McKay declined to make such changes stating, “[there] is no clear career path for students with an associate’s degree in digital technologies.”

In August 2018, as AET entered its final year, Interim Provost John Stalvey reviewed AET’s status and issued the following directive:

Given that this program was one of the most subscribed associate’s degrees in the college and that there is demonstrable state need, my recommendation is that the program move forward with a curriculum update that responds to state, industry, and employer needs.

On November 2, 2018 a group of industry representatives was convened to discuss updates to the AET program. It was agreed that the program should be aligned with the first two years of an accredited architecture program in order to provide students with a clear academic path if they were to continue their education and work towards professional licensure in architecture. They would continue to receive training in the digital technologies used in the architecture, engineering, and construction industries, qualifying them to work as support technicians in the industry.

Following the industry representatives meeting, an extensive study of Western Undergraduate Exchange (WUE) universities was conducted. Architecture courses were tabulated, analyzed, and compared, leading to a sequence of courses that emulated the first two years of a typical architecture program. Courses from other departments at UAA, such as Art, were incorporated into the curriculum while studio courses in critical design thinking needed to be developed from scratch, based on representative courses from accredited architecture schools. The resulting curriculum is an innovative mix of new and existing UAA courses: a program based on the latest and best in architectural education.

With an AAS degree, AET cannot be an accredited architecture program. The National Architectural Accrediting Board (NAAB), the only architectural accrediting body in the U.S., only accredits schools with Bachelor of Architecture programs or higher. However AET is designed to feed into NAAB accredited programs. Its structure is meant to allow UAA students to transfer into other architecture programs as juniors. The assessment measures set up for the AET program is designed to satisfy Student Performance Criteria establish by NAAB. With the design and preparation of the revised AET curriculum, it is hoped that enrollment numbers will justify the exploration of developing a Bachelor or Master of Architecture program at UAA. Alaska is one of only two states in the U.S. without an architecture program. As the only state located in the arctic, with some of the nation’s most severe and challenging geographic and weather conditions, it would make sense to encourage the cultivation of this new and innovative AET program.
As mentioned earlier, AET and CM share many of the same courses. As part of CM’s Strategic Plan, all CM courses were to be developed for distance delivery by 2022. CM is on track to achieve this goal and, de facto, many of the AET courses will have also been developed. With this advantage, AET is in excellent position to act on the momentum generated by the CM program and develop all its courses for online delivery.

The AET program shows increased levels of efficiency as seen in the above IR data. Student Credit Hours to Full Time Equivalent Faculty (FTEF), Enrollment to (FTEF), and average class sizes all are trending upwards. This indicates a program committed to improvement and capable of adapting to tighter budgetary constraints.

Enrollment in the AET program has been trending downward which is largely due to being placed in suspension in 2017. The decline should also be considered in light of general demographic trends. 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. It should also be remembered that the state entered a recession in the summer of 2014. Tighter economic circumstances may discourage prospective students from spending money on school. 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). It is not only the AET program that is experiencing declining student enrollment.

Fortunately, the program is served by a dedicated and highly competent Student Success Advisor. They enthusiastically engage in recruitment activities and carefully monitor student progress. Their contribution to student success is reflected in this student’s words to their supervisor:

[She] is the most knowledgeable advisor I have worked with in over thirty years of college. She knows who to talk to and what needs to be done every time. [...] I want to continue attending college in Alaska, but it doesn’t have to be with this institution. [She] is one of the reasons I stay with UAA.

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

Both the University of Alaska Southeast (UAS) and the University of Alaska Fairbanks (UAF) have drafting programs. UAS offers a Certificate in Drafting Technology; UAF offers an AAS and a Certificate in Drafting Technology. As mentioned earlier, drafting as a profession is waning. Due to advances in digital technologies that integrate drafting into the design process, drafting professionals are no longer in demand. Design is done by registered design professionals who are legally responsible for projects. They can easily render their designs as construction documents: the work that once occupied drafters.

The UAA Architectural & Engineering Technology program offers an AAS but the program has been adapted to the new reality of a changed job market. The UAA program broadens students’ skill set to include critical design thinking, requiring students to formulate solutions to a myriad of problems that arise during design. Manipulation of digital software remains a crucial part of the AET program but simple software proficiency is not enough to productively contribute to the complexities of contemporary construction projects and the team dynamics at play in today’s work environment.

5. Summary Analysis (500 words or less)

The Architectural & Engineering Technology (AET) program is closely associated with the Construction Management (CM) program. 46% of the core courses required for the Bachelor of Science in CM are AET courses. More than 50% of the core courses required for the Associate of Applied Science degree in CM are AET courses. Although the AET program is not externally accredited, the CM program is accredited by the
American Council for Construction Education (ACCE). Without the AET program, CM could not be maintained as a stand-alone program or retain its accreditation.

The AET program has been revised in response to changing workforce needs. It was originally designed to supply the Architecture, Engineering, and Construction (AEC) industry with hand drafting personnel. Since the introduction of digital modeling and drafting software, the need for drafting technicians has declined dramatically. There is however a persistent need for design skills used by architects and engineers. The September 5, 2018 UA Statewide and UAA Offices of Workforce Programs report to the Board of Regents revealed a deficit of fifty-nine architects annually in the state. The revised AET program is intended to establish a foundation for an architecture program in Alaska.

Graduates of the AET program are educated in critical design thinking skills and able to effectively function as support personnel in architecture and engineering firms. They also have essentially the first two years of an architectural education and an academic pathway established should they decide to pursue an architecture degree and professional licensure.

As an AAS program, AET cannot be accredited by the National Architectural Accrediting Board (NAAB), the sole agency authorized to accredit professional degree programs in architecture. Only Bachelor of Architecture (BArch), Master of Architecture (MArch), and Doctor of Architecture programs can be NAAB accredited. Graduation from a NAAB accredited institution is required to pursue professional licensure. Development of a BArch or MArch program would be the next step in AET’s evolution. This would provide Alaska with much needed design professionals and allow Alaskans the opportunity to pursue architecture without having to leave the state and invest tuition dollars elsewhere.

Before developing a NAAB accredited architecture program, it is anticipated that AET will join the Coalition of Community College Architecture Programs (CCCAP). Members of the CCCAP are affiliated with NAAB accredited schools and often have articulation agreements that ensure that graduates with an AAS degree can transfer into the affiliated school at junior level standing.