

FINAL MINUTES
UAA College of Engineering Advisory Board
September 7, 2018 at 7:30 am – EIB 413
Anchorage, Alaska

1. Welcome, Roll Call and Introductions

Jenny Jemison, Chair, called the meeting to order at 7:35 a.m. and welcomed advisory board members, staff and guests. Tami Choquette called the roll.

Members Present: Jenny Jemison (Chair), Melissa Branch, Paul Brooks, Jack Colonell, Pat Coullahan, Mark Frischkorn, Virginia Groeschel, Alex Hills, Nicole Knox, Loren Leman, Boyd Morgenthaler, Richard Reich, George Skladal, Steve Weaver, John Zufelt, Walter Almon (ex-officio), Nic Choromanski (ex-officio).

Members Absent: Derek Christianson, Bruce Davison, Dan Fawcett, James Hemsath, John Lau, Stephanie Mormilo, Sara Pate, Gregory Schmidt, Michael Todd, Lewis Westwick, Mark Ayers (ex-officio), Steve Buchanan (ex-officio)

UAA CoEng Staff and Visitors Present: UA President Jim Johnsen, Interim Chancellor Sam Gingerich, Interim Provost John Stalvey, CoEng Dean Fred Barlow, UAF CEMADC Chair Chantal Walsh, Sr. Development Officer Jayna Combs, Executive Assistant Tami Choquette, CBPP Dean Karen Markel, UA Foundation President Susan Foley, Director of Alumni Engagement Tina Teaford, Joe Zimmerman.

2. Board Housekeeping:

A. Approval of the Agenda

The agenda was approved as presented.

B. Approval of Minutes

The minutes from the meeting of April 27, 2018 were approved as presented.

3. Special Order of Business:

A. UA President Dr. Jim Johnsen: The Academic and Student Affairs committee of the UA Board of Regents recently approved the Accelerated MS degree in Civil Engineering. Several members of the advisory board attended the committee meeting. Loren Leman, past advisory board chair, spoke in support of the program noting past successes of the college including: meeting state demand for an increase in engineers, acting on industry requests to be more user-friendly, and demonstrating that more can be done with less when faced with budget reductions.

In response to budget reductions, the university re-allocated funding into strong programs including engineering and ANSEP. This year the legislature provided increased support to the university including \$5M in maintenance and \$10M to support initiatives. As the university looks forward it will build on what was accomplished by both engineering colleges at UAA and UAF in Strategic Pathways. Both are commended for their creativity and collaboration.

Moving forward the university will focus on four high priorities: **Economic Development** (STEM Grads, Invention Disclosures), **Workforce Development** (Engineering, Construction - UA has discounted tuition in over 100 occupational endorsements), **Research**, and **Education Attainment** (Enrollment and Completion.) Working with K-12, a new Middle College High School has just been started at UAA with the Anchorage School District. ASD students who are college ready have a home base at UAA and often take classes with other UAA students. A similar program exists with the Mat-Su School District. 75% of students who complete the Middle College High School programs come to UA and the university is looking to expand these across the state.

In addition to the modest operating budget increase, the legislature passed an extension of the Education Tax Credit program which was originally set to sunset in December 2018. Other positives include the continuation of the Alaska Performance Scholarship Program, which rewards students for taking a rigorous high school program, and the Alaska Education Grant, which provides needs based support to students.

The UA Board of Regents will meet next week. Agenda items include: preview of FY20 operating and capital budgets, updates on initiatives in support of the four high priority goals, increasing support of Title IX across UA to strengthen the culture of safety and respect across the system, facility maintenance, and compensation increases for faculty and staff which haven't occurred over the last two years. These items and others add up to \$10M worth of initiatives and other funds to support the mission of the university.

It is through partnerships between industry, employers and the university as well as internal partnerships with the UA Foundation, UAF College of Engineering and Mines and between academic units that can create dynamic ideas and opportunities that create an entrepreneurial culture to build and diversify our economy.

Thank you for your service to the university.

- B. Interim UAA Chancellor Dr. Sam Gingerich: Dr. Gingerich thanked the advisory board members for their long-standing commitment to engineering education at UAA and within the state. He also noted his appreciation for the work President Johnsen is doing to better position the UA system to be a place where solutions can be found to problems that face the state. The challenge is to get the resources to the operational units each working within their cultures/communities to get things done.

There is a subtle migration from the concept of a middle college to an early college. If the desire is to have High School Juniors who are college ready, you need to impact curriculum starting as early as sixth grade. There is some interest and conversations about this at both the Mat-Su and Kodiak School Districts. Middle college provides pathways, but changing the system requires being more intentional.

In closing he thanked the advisory board, and faculty and staff at both UAA and UAF for their work and encouraged all to keep working together to continue to solve problems. Dr. Gingerich will retire from UAA on September 14.

- C. Interim UAA Provost Dr. John Stalvey: Dr. Stalvey noted how incredibly fortunate it has been having had Chancellor's Gingerich's leadership as both Provost and Chancellor at UAA. The Provost's job is complex. Having served as Dean of the College of Arts and Sciences for six years, as Provost you get to see the university working as a whole. There is a much better understanding of how the colleges working together is so important for the success of university and the state. As a result, attention is being focused on student success including first year mandatory advising and directing students into pathways in which they can succeed. In addition, the university is working with schools of education across the system. New teachers educated and trained in Alaska are more likely to stay. We need to

make sure that educators are well prepared to help K-12 students be ready for college from the 5th grade on. Meeting the workforce needs of the state is going to take teamwork across all disciplines.

It was an excellent day yesterday in the Board of Regents Academic Affairs meeting to approve the MS Fast-track in Civil Engineering. Civil Engineering is rated as a high growth area and a high un-filled position area on the state workforce website. We are meeting a critical need for the state by implementing this program.

A lot of the good work comes from your support of the college, advice to the dean and helping us understand the needs of the state. Thank you for allowing me to come to speak with you today and thank you for your hard work.

D. UAA CoEng Dean Dr. Fred Barlow:

Introduction of Guests: Dean Barlow introduced Tina Teaford, Director of Alumni Engagement. Ms. Teaford introduced herself and spoke about her role in Alumni Engagement noting that several members of the advisory board are UAA Alumni.

Staffing Changes: Several staff changes in Student Services and Advising were noted as well as the addition of an Assistant Director of Summer Engineering Academies. Several new faculty were hired as a result of successful searches last spring including: Dr. Christoph Lauter (CSE), Dr. Vinod Vasudevan and Dr. Wael Hassan (CE), Dr. Mohammad Kapourchali (EE) and Dr. Oleg Shirayayev and Dr. Chokri Sendi (ME). Dr. Saif Zahir (CSE) has also been hired as a term professor for the AY18-19 academic year. Faculty members who have moved on to other opportunities include: Dr. Andrew Metzger (CE), Dr. Seong Dae Kim (ESPM), Dr. Martin Cenek (CSE), Dr. Kirk Scott (CSE) and Dr. Lin Lee (CE). Dr. Aaron Dotson (CE) has been appointed Interim Associate Dean for Research while an internal search is conducted.

Achievements:

- Howl Days (New Student Orientation) was a very successful with 73 students and 10 parents attending the various sessions. This was very comparable to participation last year. Approximately a dozen alumni participated in speed-mentoring sessions.
- UAA CoEng and UAF CEM have continued our collaboration and meet at least once a month. A new dean of UAF CEM has yet to be named.
- 201 degrees were awarded to engineering students for the 2018 academic year. This amount has gone up dramatically from just over 100 degrees awarded a few years ago. Some of this increase can be attributed to the successful teach out of engineering programs (about 25%) which were eliminated.
- The changes that were implemented have resulted in a more fiscally sound model. Resources were moved from under-performing programs to areas of growth. The tuition and fee revenue has been making up for lost state appropriation resulting in relatively flat total revenue. Preliminary numbers indicate that student credit hours (SCHR) for fall 2018 will exceed the fall 2015 SCHR with 25% less programs. There has been a surge in tuition revenue for AY18, partially due to teach outs. It is expected that AY19 will likely be reduced but still financially viable.

BP Summer Engineering Academy: The weeklong camps began on June 4th and ended on August 3rd this year. Over 600 individual camp registration spots were available this year and roughly 500 unique individuals participated. Some students participated in multiple campus which included: Robotics, Rocketry/Aerodynamics, Structures, Coding, Alternative Energy and Water Works. The camps are possible due to the generous support from BP which has been vital. It allows students to participate in the week-long camp (8am-3pm, including lunch) for the low cost of \$125 per participant for the week. Students ranged in age from 7-18 years old with the average age between 12-13 years old. Males made up 73% and females 27% while 30% of students were minorities.

New this year a survey was sent to parents after the end of each session. 81% noted that their child seemed engaged in the session, 71% noted that their child seemed more excited about STEM, 80% noted that their child seemed to enjoy the session and 74% noted that their child seemed to learn a lot.

Challenges and opportunities include: tuition waivers are granted if children qualify for the ASD free lunch program; the cost per participant depends on the particular subject, but averages roughly \$300 per participant; some of the topics are very popular with more applications than available registration slots. The college is seeking additional support to expand the program. Additional instructors would enable more sections and avoid turning away applicants (example: 113 students were on the wait list for Robotics). Additional topics that might appeal more to young women are being considered.

Dr. Scott Hamel is the Director and Joe Selmont has recently been hired as the Assistant Director.

In closing, Dr. Barlow presented a gift to Chancellor Gingerich from the College of Engineering in appreciation for his support.

E. Sr. Development Officer Jayna Combs: At the April meeting the advisory board requested a report on scholarships.

- 120 of the UA Scholars are engineering students.
- 260 students who have received Alaska Performance Scholarships are engineering students.
- Overall, College of Engineering students have received more than \$1.6M in state and university scholarships & tuition waivers.
- Two new scholarships have been recently created using the Excellence in Engineering fund: First Robotics (3 scholarships awarded for fall) and the Dean's Achievement Scholarship (5 scholarships awarded for fall).
- Currently there are 11 students receiving the Dean's Excellence Award. The CoEng Advisory Board awardee is Aaron Holman, senior in Mechanical Engineering. Jennie Brock, Chair of the Mechanical Engineering Department, notes that Aaron is an "excellent student and a delight to have in class". Aaron is on track to graduate in the next 1.5 years.
- Scholarships for the 5th cohort (three new scholars) were provided by Harold Wirum.

The ribbon cutting for the ConocoPhillips Structures Testing Lab is scheduled for October 19th. ConocoPhillips Arctic Science and Engineering Endowment Award proposals are due October 1.

This will be the fourth round of awards since inception. It is expected that \$460K will be available to be awarded this year.

A dozen engineering students were in attendance in the Engineering and Industry building this week for the Governor's signing the Education Tax Credit (ETC) bill. Ms. Combs introduced Susan Foley, President of the UA Foundation, who spoke about the ETC bill. Ms. Foley noted that it was a struggle to get the ETC extended as the state worked through budget discussions this year. Though there is no change to the tax credit for the remainder of 2018, it will continue in a modified form after January 1, 2019.

There is one foundation for all of the UA system. Money that is donated for endowments is invested while other monies get dispersed out in ways consistent with donor wishes. The mission of the UA Foundation is to support the work of the university.

Ms. Foley thanked advisory board members for their service noting that the transformational work done is extremely important. Advisory board members each serve as examples and ambassadors for UA by both hiring interns and volunteering time.

- F. Student-Faculty Project Presentation: Dr. Joey Yang, Department Chair and Professor of Civil Engineering, introduced Aaron Murph (CE) to present on the 2018 UAA Steel Bridge team, design and competition. The final design was an under truss with an overall length of 17'6" and a maximum truss depth of 1.125'. The competition took place at Oregon Institute of Technology in Klamath Falls, Oregon. UAA took 6th place out of 19 schools and was awarded 1st place in display.

4. Persons to be Heard:

- A. Chair UAF CEMADC Chantal Walsh: UAF is still in the process of selecting a new dean. Doug Goering has agreed to stay on as Interim Dean through the end of the calendar year. Collaboration of the two boards has been instrumental for engineering. We will continue to support the deans of both UAA and UAF in their efforts and collaborations.

Chair Jemison, needing to leave early, asked Loren Leman to lead the remainder of the meeting.

5. New Business

- A. Commendation for Interim Chancellor Sam Gingerich: Loren Leman proposed the board recognize Interim Chancellor Dr. Sam Gingerich by approving a commendation in his honor and agreed to write it post-approval on behalf of the board.

MOTION PASSED: Loren Leman moved to approve a commendation for Interim Chancellor Dr. Sam Gingerich. With no objection the motion passed.

6. Committee Reports:

- A. **Membership** – Loren Leman: Board membership is currently at its maximum of 25 members. However, some members have been inactive when considering both attendance and participation. Committee Chair Leman will reach out to members who have been less active to determine their desire to remain on the board. There has been interest from others in the community who are

interested in serving on the board. Diversity in areas of engineering not currently represented will be a consideration when adding new members.

- B. Engineering Policy – Boyd Morgenthaler:** The advisory board is independent from university administration and represents the community and engineering industry at large. It is important for the board to have a clear vision of its purpose and mission. In order to define the mission and goals of the board a series of meetings have been planned. Two meetings occurred over the summer with approximately 12 board members participating. The goal of the meetings were to begin to determine the vision, mission and goals of the board and define more clearly what the board should work to accomplish. The process is dynamic (not linear). As we learn more information it affects what was thought earlier.

Three questions of discussion have included:

1. Why should we support engineering education in Alaska?
2. Why do we need a college of engineering in South Central Alaska?
3. What kind of an engineering college do we want?

The concept of a world class engineering school was discussed and examples from various different universities were considered. Ultimately, it was determined that being labeled as a world class college was less important than having world class students who can produce for Alaskans. We need a college with prestige value, a high quality brand that prepares engineers who are excellent at solving Alaska's unique problems. The committee will work to summarize the mission and vision into an elevator speech, but the ultimate goal is to determine what specifically needs to be done (i.e., what disciplines need to be taught, what is the right amount of depth in faculty, how robust will the engineering program be and how deeply will it support Alaska).

This endeavor has the potential to provide focus for the College of Engineering that may not come in other ways. Public institutions must be engaged with the communities they serve. There are unique needs of the engineering community in Anchorage and unique problems that need to be solved. These problems are best solved locally. A different set of problems and foci exist in other areas.

Next Steps: Continue to meet to draft mission/vision statements by December with specific goals defined by spring.

- C. Graduate Research – Jon Zufelt:** No meetings have occurred since April. A special thank you to Dr. Joey Yang who is now serving as an Associate Editor, ASCE Journal of Cold Regions Engineering. Potential graduate research project for the Port of Anchorage involves the knowledge of ice forces on bridge piers.

- D. Communications – Melissa Branch:**

Current activities have included:

- Graduate and Alumni recognition in May.
- Meet and Greet with incoming Chancellor Sandeen.
- Alumni participation in HOWL days including speed mentoring and ice breaker bingo. Different degree disciplines and younger alumni involved.

Upcoming activities include:

- PE refresher course starts September 11.
- ITE Scholarship Fundraiser November 10 at Alaska Zoo with beer/wine/cider tasting.
- Women in Engineering Night (WiE) in November.
- AEC Community will be participating in CANstruction and are looking for teams.
- The Professional Development Series in the CoEng will be starting in fall.
- A series of STEM nights will be starting up again throughout area schools.
- The Alumni Newsletter will be used to communicate activities to the board.

E. **UAA/UAF Joint Engineering Advisory Council (JEAC)** – Richard Reich: The committee meets once a month. As a joint committee we hear concerns from both deans, have the opportunity to gauge progress and activity, act as a sounding board and offer advice. Three objectives are **advocacy, outreach and increase enrollment** in addition to supporting the deans and holding both accountable for working together in the bigger, broader perspective. The perception has been that because of industry downturn there is not a need for engineers. This is not the case. Creating a white paper for outreach and communications to include facts, figures, and testimonials from industry as a means to communicate to different constituencies (administration/legislature/parents/students/faculty) to communicate why engineering is important. Looking forward as a joint council to meeting with both new administrations at UAA and UAF. More information including charter, objectives and minutes can be found at www.alaskaneeedsengineers.com.

7. Announcements and Member Comments:

A. **Next Regular Board Meeting** – December 7, 2018 in EIB 413

B. Member Comments

- a. L. Leman – Please look at your capsule resume on the web page and send updates to Tami. And, regarding giving to UAA, our goal is to have 100% participation by board members at a level meaningful to you.

8. Meeting Adjournment

Acting Chair Leman adjourned the meeting at 10:02 a.m.