

**DRAFT MINUTES**  
**UAA College of Engineering Advisory Board**  
**December 1, 2017 at 7:30 am – EIB 413**  
**Anchorage, Alaska**

**1. Welcome, Roll Call and Introductions**

Loren Leman, Chair, called the meeting to order at 7:36 a.m. and welcomed advisory board members, staff and guests. Tami Choquette called the roll.

Members Present: Loren Leman (Chair), Melissa Branch, Derek Christianson, Jack Colonell, Pat Coullahan, Bruce Davison, Mark Frischkorn, Virginia Groeschel, John Lau, Boyd Morgenthaler, Stephanie Mormilo, Sara Pate, Richard Reich, Gregory Schmidt, George Skladal, Michael Todd, John Zufelt, Rob Barnett

Members Absent: Paul Brooks, Dan Fawcett (Excused), James Hemsath (Excused), Alex Hills (Excused), Jenny Jemison (Excused), Nicole Knox (Excused), Steve Weaver, Mark Ayers, Mike Lasher, Warren Lucas, Nathan Wardell, Udayan Dutta

UAA CoEng Staff and Visitors Present: UA President Jim Johnsen, Acting Chancellor Sam Gingerich, Interim Provost Duane Hrcir, Dean Fred Barlow, Jayna Combs, Tami Choquette, UAF CEM Dean Doug Goering, UAF CEMADC Chair Chantal Walsh, Joe Zimmerman, John Wirum, Peter & DaRae Crews, Dori Ditmore

**2. Board Housekeeping:**

A. Approval of Excused Absences

The following absences were excused: Dan Fawcett, James Hemsath, Alex Hills, Jenny Jemison, Nicole Knox.

B. Approval of the Agenda

The agenda was approved with the following changes: Move President Johnsen's remarks to the first item under Special Order of Business. Move Commendations from Old Business to the second item under Special Order of Business.

C. Approval of Minutes

The minutes from the meetings of April 21, 2017 and September 8, 2017 were approved without any changes.

**3. Special Order of Business:**

- A. UA President Dr. Jim Johnsen joined via phone from Juneau where he was meeting with students and executive agency leaders. In these meetings three main points are being shared: UA's **quality** of facilities, faculty, staff, research, and education; **affordability** - UA continues to be in the top three for affordability in the US; and **opportunity** for undergraduate research, to work with industry, and to build Alaska.

On November 9 the Board of Regents approved, by a 9-1 vote, a 5% tuition increase for academic year 2019-2020 with the student regent voting in favor. The board also approved the fiscal year 2019 operating and capital budget requests of \$341 million and \$50 million respectively. Both will be forwarded to the Governor first for his consideration and then on to the Legislature. The operating budget request is down \$37 million from 2014. The cumulative State appropriation loss from 2014-2018 is \$145 million. Today UA has 1183 fewer faculty and staff across the system. There is cautious optimism that the Governor will agree that by investing in higher education we build

Alaska's future. UA is the single institution in Alaska that is poised to lead the State forward to address the State's big challenges including healthcare costs, economic development and diversification, crime etc.

The 7-year plan, the foundation of the budget that the regent's approved, includes 5 goals and 10 metrics with steps and measures through 2025. The underlying strategies supporting these goals focus on marketing, recruitment, student support/success, research support, and partnership with K-12 and industry. Additional information can be found on the Board of Regents website.

On the federal level there are several tax bills under consideration by the House and Senate. The university has weighed in with the Alaska delegation on provisions that affect higher education including those that propose to take away some of the tax exemptions that are provided to students, faculty and staff.

The university continues work on realization of the land grant. A concept has been developed and will be shared at a later date.

The search for the new UAA Chancellor is moving forward. A search committee has been formed and a national search firm has been selected to help with the search. The CoEng Advisory Board has one member on this committee.

The ribbon cutting for the new ELIF building in Fairbanks is set for Dec 8 in Fairbanks and all are invited and encouraged to attend. Thank you for your support and statewide view of engineering in Alaska.

- B. Commendations – Chair Leman presented commendations from the Board to the families of Paul Crews and C. Harold Wirum. Peter Crews and wife DaRae accepted the commendation honoring his father. John Wirum and his family accepted the commendation honoring his father.
- C. Interim UAA Chancellor Dr. Sam Gingerich: UA/UAA plays a critical role in providing opportunities for the State of Alaska and its students. In 2017 UAA committed to the strategic plan *UAA 2020* which focuses on student success. The position of Vice Provost for Student Success has been created and Claudia Lampman has assumed this position. Many activities and initiatives are being planned to make sure that students in Alaska, the US and around the world are aware of the opportunities here in Alaska. Partnerships with other colleges and school districts also provide different pathways for students to succeed in the university.

UAA continues to look for opportunities to bring students to campus. ANSEP recently hosted students from the Lower Yukon and St. Mary's school districts. Highlighting excellence at UAA, it was recently announced that Samantha Mack, an Alaska Native from King Cove, has been accepted as a 2017 Rhodes Scholar. She is the first graduate from UAA to receive this award. This award is reflective of her considerable talents as well as the quality of this institution.

Thank you for the work you do and the support and commitment of time made to make sure our programs are meeting the needs of the State.

- D. Interim UAA Provost Dr. Duane Hrcncir: Provost Hrcncir came to UAA in August. A native of Houston with a background in chemistry, his professional background includes working in industry on research for Gulf Oil Company in Pittsburg, as a faculty member and administrator at the University of Texas System in Dallas and recently retired from the South Dakota School of Mines and Engineering where he served as provost and as interim president. He was asked to come to UAA to assist during this period of transition and search for new leadership. Thank you for this opportunity and please let me know if there is anything the Provost's office can do to assist.

- E. UAA CoEng Dean Fred Barlow: The **Mechanical Engineering Fast Track M.S. degree** has been approved and enrollment is now open for Spring 2018. It allows up to 9 credits to be double-counted for BS and MS degree and is a common approach throughout the US to encourage graduate school enrollment. The degree can be completed on a part-time basis allowing students to take classes and work in industry. The college is also in the process of pursuing this option for Civil Engineering.

**Outreach activities** include hosting the Women in Engineering night with Anne Brooks as the keynote speaker and approximately 140 attendees; working with UAA Recruitment on a series of targeted post card mailings to prospective in-state students.

**K-12 Outreach:** Vicki Nechodomu hired as the STEM Outreach Coordinator. Activities over the fall have included UAA-Clark Pre-Engineering Academy, teacher tours for those specializing in CTE (careers and technical education), Science and STEM instruction, provided interactive activities and keynote speaker (Dr. Aaron Dotson) for STEM Day event on October 7 hosted by College of Arts and Sciences, support of local robotics teams including FLL and FTC (middle & HS leagues), and attending college and career fairs on the recruiting circuit. Estimated impact for fall 2017: 70 educators and over 1000 K-12 students.

**Faculty hires** include bringing on a term faculty member in EE effective January 2018 for approximately two semesters to cover for a faculty member who is on leave.

**Research news** includes a \$500,000 NSF Convergence Grant to develop coastal hazards forecasting models (PI Ravens and co-PI Tobias Schwoerer (ISER)); \$260,000 award from a collaborative UAF/UAA/USGS Bureau of Ocean and Environmental Management (BOEM) project to forecast coastal erosion and coastal sediment transport in the vicinity of Hilcorp Corporation's Liberty project on the North Slope (PI Ravens and team); \$1,090,000 award from the US Army Corps of Engineers and the US Air Force to forecast coastal erosion and shoreline change at two critical DOD sites. (PI Raven and co-PI's Hailu, Kupilik, Yang and Munk). \$250,000 Sea Grant project to work with community members and emergency managers in Utqiagvik to develop a community-based coastal monitoring program. Dr. Abaza also continues to have multiple DOT&PF funded transportation projects.

**Challenges:** Perception is that the downturn in the economy means less building therefore less need for engineers. Reality is that the freshman class of 2017 will be eligible for PE licensure in 2027. Economies will fluctuate, it does not mean we need to decrease our commitment to educating new engineers. Employers will continue to need graduates and prospective students will want engineering and related degrees. ACT scores for engineering students are above average. Without opportunities in Alaska, some of the best and brightest students will go Outside and many will not return.

UAA/UAF is committed to strategic pathways and commitment to shared courses. The fact that UAA and UAF are on different daily schedules is posing challenges with contact hours etc. UAF is considering changing their schedule.

**How you can help:** Continue to advocate for the university and for engineering, participate in sharing your stories to help educate the public and policy makers, volunteer for k-12 outreach activities, and share alumni success stories and their impact on Alaska.

**Comments & Questions:**

V. Groeschel – Two CoEng student clubs (Robotics and Engineers Without Borders) participated in Turnagain STEAM night. It was a huge success and the parents of the elementary students were thrilled to have college students there. Appreciate heads of companies allowing their employees to

volunteer at these events.

L. Lemman - What are we doing in our programs to train students in management and communication skills? Working to produce well rounded engineering students through curriculum. Also considering revamping ESM 450 (traditionally engineering econ). Minor degrees are a challenge for engineering students, however, considering creating a minor in PM giving students an opportunity to learn soft skills and communication skills.

S. Mormilo: ASD has a gifted mentorship program for HS students who are interested in certain careers and are always looking for volunteer engineers to pair with students.

B. Davison: The perception of education quality at UAA needs to change so that the smartest are convinced to come/stay here instead of going Outside.

F. Sr. Development Officer Jayna Combs:

The Hawk Consulting Scholarship has been officially renamed the Maynard Tapp Scholarship at the request of Hawk Consulting. The Conoco Phillips Science and Engineering Awards have been finalized and \$441,000 dollars will be distributed this year. ATS Alaska has renewed their support of the ATS Alaska Scholarship. Lounsbury has also renewed their support for the Hewitt V. Lounsbury scholarship. Terry Gyrtling, a recent graduate, has established the Smart Mom Engineering Scholarship, for those entering a new career.

G. Student Representative – Co-Chair of CoEng Student Council – NO REPORT

H. Student-Faculty Project Presentation

Dr. Martin Cenek, professor Computer Science and Engineering, introduced Cory Sheaffer and Harry Thomas, juniors in CS and CSE respectively, to present on their research project modeling how we as a society interact with natural resources in the north. Titled “A Machine Learning Agent-Based Model of Subsistence Land-Use Dynamics in Alaska” the project attempts to answer the question “How are changes to the environment brought on through climate change and human development going to affect the subsistence land use of hunters in northern communities?” The project is a collaboration between the Department of Computer Science and Engineering at UAA, Department of Civil and Environmental Engineering at UAF, Alaska Department of Fish and Game, and private companies and engineers within the state.

4. **Old Business** – NONE

5. **New Business** - NONE

6. **Persons to be Heard:**

A. **UAF College of Engineering and Mines Dean – Dr. Doug Goering** thanked the Board for their continued support over the last decade. The formal ribbon cutting for the new UAF Engineering Learning and Innovation Facility is scheduled for December 8 at 4pm in Fairbanks. More than 200 guests are expected to attend and a livestream link will be provided for folks to watch online. Student groups will be providing tours of the new labs in the building.

UAF is making an effort to move to 50 minute classes on the Fairbanks campus. This will help alleviate some of the problems of sharing coursework between UAA and UAF. Traditionally UAF has had a 60 minute classes, compared to UAA’s 50 minute classes, but a shorter semester than UAA. This made the contact hours much the same on both campuses up until an extra week was added to the Fairbanks semester in the effort to align the semesters across the system. This

had the collateral effect of increasing the number of contact hours at UAF. This change will give more opportunity to pursue Strategic Pathways, share course work and improve efficiencies.

- B. **Chair of UAF CEMADC – Chantal Walsh** shared that UAF lost an engineering student last week, Sylvester Smith - senior in Petroleum Engineering, to a tragic accident. Echoed invitations to attend in person or watch online the ELIF ribbon cutting ceremony.

**7. Committee Reports:**

- A. **Engineering Policy** – Boyd Morgenthaler: No activity since our Fall meeting to report.
- B. **Membership** – Loren Leman: Current membership stands at 24 and the bylaws allow for up to 25. Elizabeth Greer, who attended the April 2017 meeting, considered joining but has declined at this time. If Board members have other recommendations, please share them with the chair. The Board would benefit by having more diversity in engineering fields represented.
- C. **Graduate Research – Jon Zufelt**: No additional information to report outside of the dean's report.
- D. **Communications** – Melissa Branch: The professional societies have been very active independently. It has been felt for some time that there is opportunity for collaboration or overlap in activities. Currently working on a fact-finding mission to find out what people have been doing and how we can partner together to increase impact. In the new year will plan to meet with Dean Barlow, Vicki Nechodomu and board members to discuss how to work together to increase communications about engineering activities. February is outreach month to include Girl Scouts and Women in Science and Technology, MathCounts, and Engineers Week. Scholarships applications for Engineers Week are due by mid-January.
- E. **UAA/UAF Joint Committee** – Richard Reich: The JEAC continues to meet monthly in order to achieve the milestone goals of the UA Strategic Pathways initiative. Both deans and the chairs from the UAA board/UAF council have been attending the monthly meetings. As was mentioned earlier in the meeting, there has been a lot of dialogue on scheduling, contact time, hours etc. The charter has been approved by both UAA board and UAF council and has been forwarded to UA President Jim Johnsen. At the November meeting Bryan Clemenz was elected chair and Richard Reich as co-chair. The joint annual work plan is being developed with three main objectives: advocacy, outreach and increasing enrollment. The committee is ready to be engaged in outreach as needed and will call upon each board/council to help as needed in each of these areas. A focus in the work plan over the next year will be on communication and how to help facilitate dissemination of information. Survey results have been posted and continue to be analyzed.
- F. **Other Committees** - Alex Hills will represent the board on the UAA Chancellor search committee.

**8. Announcements and Member Comments:**

- A. **Next Regular Board Meeting** – April 20, 2018 in EIB 413 (subsequently changed to April 27)
- B. **Member Comments**
- a. S. Mormilo: Reminder for licensed PEs, 2018 is a renewal year for license renewal, fees are \$100 for 2 years. Continuing education credits can be obtained by attending the CoEng Professional Development Seminar on Fridays (live or via web).

- b. P. Coullahan: Reminder of scholarship opportunity – Society of American Military Engineers Scholarship. They have established a student chapter at UAA. Kim Riggs is the scholarship chair. Deadline for scholarship applications coming up soon.
- c. M. Branch – SWE Greatland scholarship applications due in February.
- d. V. Groeschel – Many activities today, graduate celebration and Order of the Engineer ceremony this afternoon and UAA Robotics thank you tonight with open tour of ECB and free pizza. Thank you for your support of the student clubs.

**9. Meeting Adjournment**

Chair Leman adjourned the meeting at 9:45 a.m.