

COLLEGE OF ENGINEERING ANNUAL PROGRESS REPORT AY 2025-2026

PLAN DEVELOPMENT

The roots of our current strategic plan began in 2014 with the assistance of management consultant Belinda Breau of Breau Leadership Solutions. Our initial plan was developed with input from hundreds of stakeholders, including community members and university staff/faculty. After collecting survey data, multiple in-person workshops were held to develop the core mission, vision, and values. In 2020 we refined our plan under the guidance of Karen Kirk from Synergistic Solutions. With primary participation from faculty and staff, we assessed the climate and atmosphere of the College, identified department strengths, areas of concern, common direction, and focused on our mission, vision, and values from these activities.

We now undergo a recurring review process to collect input from stakeholders, analyze progress, and adjust to maintain alignment with our vision. Part of this process includes making data on agreed-upon metrics available to faculty and staff: degree awards disaggregated by program, as well as program enrollments disaggregated by admission type, gender, course load, census age, and race/ethnicity. These data were collected and distributed in 2023 and 2025.

Our last major meeting was in March of 2025 to discuss updates to the plan with all CoEng faculty and staff. We conducted a SWOT analysis and brainstormed strategies. The results were distributed to all college and programmatic advisory board members, plus all faculty and staff. In June 2025 the plan was updated to align with updated UAA 2027 aspirations.

ALIGNMENT WITH UAA'S STRATEGIC PLAN *UAA 2027*

In support of UAA 2027 the College of Engineering is focusing on three initiative areas:

UAA 2027 Aspiration #1: We put students first

- Goal: Students are recruited, retained, persist, and graduate at increasing rates.
- Tactics / Tasks
 - Expand efforts to include students in planning for college events by supporting student club-led events when possible and inviting student clubs to partner with CoEng events.
 - Conduct marketing and promotional activities that reach local and out-of-state potential students
 - Seek donor funds to maintain and enhance academic programs and equipment.

- Expand Professional Development Seminar Series to include CAFÉ sessions for faculty professional development, particularly in the area of teaching.

Aspiration #2: We embrace our role as a trusted and respected community partner.

- Goal: Meet the needs of the engineering community, including K-12, industry, non-profits, and government entities
- Tactics / Tasks
 - Expand job shadowing program participation through video awareness campaign and partnership with ANSEP
 - Expand outreach activities, particularly at K-12 level
 - Host engineering-related competitions and events open to the public and alumni
 - Develop and update academic programs to meet the needs of constituents and the profession
 - Dena'ina Athabascan name for the EIB Solarium

Aspiration #3: We positively impact communities and the world through innovation

- Goal: Strengthen interdisciplinary initiatives; increase external sponsorship of research, scholarship, and creative activities, expanding student opportunity where possible.
- Tactics / Tasks
 - Update CoEng Innovation Website: institutionalize process for regularly updating undergraduate and graduate capstone, plus graduate thesis and project work
 - Promote CoEng Innovation Website to potential students, collaborators, and community members
 - Host conferences/workshops
 - Highlight Arctic and rural engineering research in stories and promotional materials
 - Women in Engineering Initiative
 - ANSI Initiative

PROGRESS

Aspiration #1: We put students first

We continue to engage students to assist with College of Engineering events that involve other students and the community. Examples include:

- AI & Robotics Club demonstrations for the Academies of Anchorage and UAA STEM Day
- Students hosting events for the College of Engineering Student Club Showcase
- Partnership with the student chapter of ASHRAE to host our annual resume/mock interview event in the Spring
- Student club demonstrations during the CoEng Night at the Game, in which we host an engineering theme at a UAA sporting event

We also expanded our efforts to promote the BS in Geomatics and the BS in Project Management through additional pre-college outreach, tabling at events, and marketing/advertising. Multiple CoEng programs were featured through Study International with a focus on Asian and Indian countries.

Finally, we continued to maintain specialized accreditation for multiple programs. This means that our professional programs meet the educational standards set by industry. The BS in Mechanical Engineering, the BS in Civil Engineering, the BS in Electrical Engineering, and the BS in Computer Systems Engineering are accredited by the Engineering Accreditation Commission of ABET. The BS in Geomatics is accredited by the Applied and Natural Science Accreditation Commission of ABET. The BS in Computer Science is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>. Finally, the Master of Science in Project Management and the Graduate Certificate in Project Management are accredited by the Project Management Institute Global Accreditation Center (PMI-GAC). The Project Management Department is currently undergoing reaffirmation of accreditation.

Our metrics indicate that fall headcount has been experiencing a slight, gradual increase from 745 in 2022 to 774 in 2025. Awards dropped slightly from 117 in 2022 to 106 in 2025 which is consistent with enrollment lags from 4-6 years prior. Overall, our enrollment has remained relatively stable for the past 4 years although individual programs have experienced some fluctuation. New and transfer students are up for 2025.

Aspiration #2: We embrace our role as a trusted and respected community partner.

Outreach to the community is a key activity to meet this aspiration. Some outreach activities, such as participation in UAA STEM Day and the Academies of Anchorage, were highlighted in the prior section. In addition, we host an open house “Journey Into Engineering” event targeted at high school students, along with additional activities with ANSEP and Middle College students. Our flagship outreach program is our Summer Engineering Academies. In the summer of 2025 over 701 kids from 3rd to 12th grade participated in week-long camps that introduced them to engineering subjects. We held 30 sessions with five academies at the Mat-Su campus. A sample of other recruitment and outreach activities includes:

- Office of Children’s Services tour
- Howl Days tabling
- Custom tours for local groups and events that promote excellence at the K-12 level, including
 - TRIO Upward Bound group tour
 - Tour for Chenega Corporation Future Quest students
 - Saturday programming for Jack and Jill of America
- Visit to Mt. Edgecumbe HS for AI presentations and demos
- Alaska Military Youth Academy tabling event

We continue to work to grow our job shadowing program and convene industry and College advisory boards to maintain a close connection with the professional community. In addition, we strengthened our outreach with Alaska Native corporations.

We also initiated a process to name our Solarium space in EIB in the local language of Dena'ina Athabascan. After public input and voting, we propose to name the space Tsisk'eydlan eydut. In Dena'ina stories, when the King Salmon would begin to enter the Tikahtnu (Cook Inlet), the Golden Crowned Sparrow would begin to sing to let everyone know that the King Salmon were on their way up the Inlet. Like the King Salmon, we return to UAA year after year to celebrate the regenerative power of education and innovation. The naming is pending.

Aspiration #3: We positively impact communities and the world through innovation

A major professional activity in April 2025 was the Pacific Northwest ASCE Student Symposium hosted by ASCE students at UAA. In this competition, hundreds of civil engineering students from universities across the Pacific Northwest convened in Anchorage for a steel bridge, surveying, sustainable solutions, timber-strong design, and academic paper competition. In the highlight steel bridge competition, UAA students placed third overall.

From community-based research to student capstone projects, our work has a major impact on communities. To communicate this work, we are updating our Innovation Website to focus on capstone and student research projects with over two dozen capstone projects from 2025 and 2026. An updated publication process and software platform will be posted in the Fall 2026 semester.

CoEng faculty conducted research funded by entities including NSF, LG Electronics, the State of Alaska, NASA, NOAA, ONR, and others on topics ranging from Artificial Intelligence, Arctic Coastal Erosion, Microgrids, Climate & Coastal Change, Critical Minerals, Transportation, and Kelp Processing. In 2026 there were 34 grants involving 22 CoEng PIs with a grant award total of \$48M and \$10M budget.

MOVING FORWARD

For the upcoming year we are focusing on cataloging our Outreach, Recruitment, Retention, and Marketing activities with the goal of strategically revising our portfolio of activities to meet enrollment goals, and of setting up the means to regularly evaluate these activities by tracking agreed-upon performance metrics. The existing catalog includes a list of active projects and programs along with specific goals, target audience, and type, allowing us to find strengths and gaps where we need to focus our attention.

We also plan to conduct additional extra-curricular professional development activities for students. Industry studies and our industry partners have expressed interest in developing soft skills, such as interview and communication skills for our students. We have begun planning with GCI for activities to complement our resume and interview workshop.

Target recruitment will continue for under-enrolled programs. In addition to continue our focus on the AAS/BS Geomatics and BSPM degrees, we are carefully monitoring enrollment trends for all programs. CS in particular bears scrutiny as a bellwether for the impact of artificial intelligence. The College has a strength in artificial intelligence that we also plan to leverage as a strength for UAA and the State as AI increases in capability and application.