Academic Affairs
University of Alaska Anchorage

3211 Providence Drive
Anchorage, AK 99508-4614
907.786.1050

2021 ANNUAL ACADEMIC ASSESSMENT REPORT FORM
(Due October 15 to the dean)

The Faculty Senate Academic Assessment Committee (AAC) is committed to a vision of assessment that leads to continuous program improvements and benefits students. Annual assessment reporting informs decision making and resource allocation aimed at improving student learning and success. It also enables the AAC to analyze assessment across the institution and to respond to UA System, Board of Regents, legislative, and Northwest Commission on Colleges and Universities (NWCCU) requests. We thank you for your continued support of and participation in this annual activity.

Starting in Spring 2021, UAA is moving to one academic assessment reporting mechanism. The below form merges and streamlines the former Annual Academic Assessment Survey and the Annual Academic Assessment Report. It also incorporates questions about how academic programs contribute to student achievement of institutional core competencies and to student success.

This annual report will be due to the dean on October 15. Programs with suspended admissions and new programs in the first year of implementation are not required to complete this form.

These reports are public documents and will be posted on the assessment website. Responses are to be narrative only, and must be ADA and FERPA compliant. Do not embed any links, including to webpages or other documents. To be FERPA compliant, do not include the names of any current or former students. Rather, use statements such as, “In AY21 four program graduates were accepted to graduate programs in the field.” Programs with specialized accreditation or other external recognitions must comply with restrictions regarding what can be published, as per the accreditor or external organization. Do not include appendices. Appendices to this form will not be accepted.

The form uses narrative, text, and drop-down boxes. Narrative boxes have a character limit, which includes spaces. When using text and drop-down boxes, if you want to undo an answer, press “Control-Z” or “Command-Z.”

For technical assistance with this form, email Academic Affairs (uaa.oaa@alaska.edu).

PROGRAM SECTION (Due to the dean on October 15)

After completing the Program Section, the program should email this form to the dean, with a copy to the appropriate community campus director(s) if the program is delivered on a community campus.

Submission date: 10/13/2021

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Submitted by: Caixia Wang, Associate Professor and Chair, cwang12@alaska.edu

Program(s) covered in this report: Geomatics BS
(Programs with suspended admissions and new programs in the first year of implementation are not required to complete this form.)

If you selected "Other" above, please identify. *(100 characters or less)*

College: College of Engineering

Campuses where the program(s) is delivered: ☒**Anchorage** ☐**KOD** ☐**KPC** ☐**MSC** ☐**PWSC**

Specialized accrediting agency (if applicable): Applied Science Accreditation Commission of ABET
If explanation is necessary, such as only some of the certificates and degrees are covered by the specialized accreditation, briefly describe:

INSTITUTIONAL STUDENT LEARNING CORE COMPETENCIES

In 2020, UAA launched a consensus-based, deliberative process to identify the key skillsets that help students achieve academic and post-graduation success. After a year-long process that included students, faculty, staff, administrators, alumni, and employers, the UAA community identified four "core competencies" at the heart of a quality UAA education. Students develop mastery of these competencies through curricular (e.g., courses), co-curricular (e.g., internships, conferences), and extra-curricular (e.g., student clubs) learning experiences.

After the stakeholder-based process in AY20, UAA conducted a pilot project focusing on the core competency of Personal, Professional, and Community Responsibility (PPCR). This decision was based on input from the 2020 Annual Academic Assessment Retreat.

Question #1 below is designed to engage program faculty in thinking about how they can or already do promote student learning in this core competency.

1. **Personal, Professional, and Community Responsibility: The knowledge and skills necessary to promote personal flourishing, professional excellence, and community engagement.**
    - **What would you hope a student would say if asked where in your program or support service they had the opportunity to develop proficiency in this Core Competency? *(500 characters or less)***
      They would include 1)GEO A457 Boundary Law II, which introduces Alaska Statutes, Code, and case law applicable to the land surveying profession; 2)GEO A460 Geomatics Capstone Project, which actively engages professionals in co-mentoring; 3) Geomatics

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Student Association (club) involving students to serve as its officers, in networking with professionals and scientists in the field, and in K-12 outreach; 4) attending/volunteering in conferences (e.g., ASMC), and 5) working on research projects.

- **Do you have an example that could be a model for the university of an intentionally designed course, assignment, or activity that showcases the student learning in this core competency? ☐Yes ☒No**
  If yes, please briefly describe. *(500 characters or less)*

- **Do you have any ideas about where your program or the university might develop other intentionally designed opportunities for students to develop proficiency in this core competency? ☐Yes ☒No**
  If yes, please briefly describe. *(500 characters or less)*

PROGRAM STUDENT LEARNING OUTCOMES

2. **Please list the Program Student Learning Outcomes your program assessed in AY21. For each outcome, indicate one of the following: Exceeded faculty expectations, Met faculty expectations, or Did not meet faculty expectations.**

   Example: Communicate effectively in a variety of contexts and formats – Exceeded faculty expectations.
   SLO1. An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline - Met faculty expectations.
   SLO3. An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions - Met faculty expectations.
   SLO7c. An ability to apply knowledge in Surveying calculation and data adjustment - Met faculty expectation.
   SLO7d. An ability to apply knowledge in Geodetic coordinates and astronomy - Met faculty expectations.

3. **Describe your assessment process in AY21 for these program student learning outcomes, including the collection of data, analysis of data, and faculty (and other, e.g., advisory board) conversations around the findings. *(750 characters or less)***
   This year, course-level assessment (CLA) data were collected for Outcomes 1, 3, and program-specific Outcomes 7c and 7d. In addition, we gave our senior exit survey to all of this year's graduates, which collects indirect assessment data on every outcome. The overall attainment level is set as 75% for the target level of the program. It is measured from both direct and indirect assessment using 80/20 weight factor.

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4. **What are the findings and what do they tell the faculty about student learning in your program? *(750 characters or less)***
   The attainments for four outcomes measured this year are 97% for SLO1, 100% for both SLO3 and SLO7c, and 80% for SLO7d. They are all above target levels of 75%. CLA data were taken from upper-level homework and exam questions. Both the data and instructors report that students are performing at a satisfactory level in these measured outcomes.

5. **Based on the findings, did the faculty make any recommendations for changes to improve student achievement of the program student learning outcomes? Please describe the recommended action, what improvement in student learning the program hopes to see with this change, the proposed timeline, and how the program will know if the change has worked. If no recommendations for changes were made, please explain that decision. *(750 Characters or less)***
   SLO5 was not assessed via CLA in this cycle. Based on findings from the previous cycle to continue enhancing student performance for SLO5, the instructor of GEO A457 used this cycle to further develop the ethics and standard of professional practice content and added discussions to improve the learning experience. The outcome will be measured and reported in the next cycle for SLO5.

PROGRAM IMPROVEMENTS AND ASSESSING IMPACT ON STUDENT LEARNING

6. **In the past academic year, how did your program use the results of previous assessment cycles to make changes intended to improve student achievement of the program student learning outcomes? Please check all that apply.**
   ☒Course curriculum changes
   ☐Course prerequisite changes
   ☐Changes in teaching methods
   ☐Changes in advising
   ☐Degree requirement changes
   ☐Degree course sequencing
   ☐Course enrollment changes (e.g., course capacity, grading structure [pass/fail, A-F])
   ☐Changes in program policies/procedures
   ☐Changes to Program Student Learning Outcomes (PSLOs)
   ☐College-wide initiatives (e.g., High Impact Practices)
   ☐Faculty, staff, student development
   ☐Other
   ☐No changes were implemented in AY21.

   If you checked "Other" above, please describe. *(100 characters or less)*

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7. **Do you have any information about how well these or other past improvements are working? Are they achieving their intended goals? Please include any data or assessment results that help you demonstrate this. *(750 characters or less)***

   The program has been conducting course curriculum improvements using assessment findings from previous cycles and constituent input. It works well, as demonstrated by the continuously increased or satisfactory attainment level measured by direct and indirect assessment. And the exit survey in this cycle showed a 100% employment rate at the time students graduate.

STUDENT SUCCESS AND THE CLOSING OF EQUITY GAPS

Programs are not required to respond to question #8 below for their report due on October 15, 2021. Question #8 will be required for the next round and moving forward.

8. **Respond to at least one of the following metrics. Student success depends on many aspects of a student's experience. On the academic program level, it can relate to correct placement, course sequencing, standardized pre-requisites, the intentional use of high impact practices, proactive advising, course scheduling practices, etc. UAA is using the following two metrics in its cyclical Program Review process, as well as in its reaffirmation of accreditation process. These data are included in the most recent IR-Reports Program Review dashboard. Please review these data for your program, note any equity gaps, and describe steps you are taking or plan to take to close those gaps.**

Metric	Definition	Rationale
JUNIOR GRADUATION RATE - BACCALAUREATE	The percentage of students who graduate with a bachelor's degree within four years of first reaching junior class status (60 credits). *Data source: RPTP end-of-term freeze files. Disaggregate as per accreditation.*	Junior graduation rate (after 60 credits) can reflect a department's success in helping students complete their degrees. Within their first 60 credits, students typically focus on completing GERs and often switch majors. Tracking how long it takes students to complete their degrees after 60 credits, when many students have likely committed to a specific major, can provide actionable information for departments.
COURSE PASS RATES BY COURSE LEVEL (Undergraduate lower-division, undergraduate upper-division, and graduate).	The percentage of students who receive a passing grade (A, B, C, P) for all undergraduate students and (A, B, P) for graduate students in a course offered by a program compared to the same rate calculated for all courses at that level. Based on a 5-year trend. Included in the	Low pass rates are one critical way to identify courses that are barriers to student success and degree completion. Failing key courses correlates with low retention and more major switching. Mitigation strategies can be internal or external to the course itself, including, among other things, the use of high-

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Metric	Definition	Rationale
	denominator for undergraduate courses are the grades D, F, W, I, NP, NB. Included in the denominator for graduate level are the grades C, D, F, W, I, NP, NB. Discipline acts as a proxy for a program. *Data source: RPTP end-of-term freeze files. Disaggregate as per accreditation.*	impact pedagogical practices, appropriate placement, course sequencing, tutoring, and other means to ensure student success within a particular course. This metric and the disaggregation of the data can inform planning, decision making, and the allocation of resources to programs and services designed to mitigate gaps in achievement and equity.

9. **Do you have any examples of post-graduate success you want to highlight? For example, major scholarships, the percent of students who pass licensure examinations, the percent of students accepted to graduate programs, the percent in post-graduation employment in the field or a related field. *(750 characters or less)***

   The program graduated its first Master of Science student in May 2021 (committee chaired by the program faculty) through the UAA Interdisciplinary Studies Master's Degree program. The student was also the recipient of the ADAC graduate research fellowship throughout his MS study. He was our own graduate from the BS program. And he has been employed by the Fairbanks North Star Borough after his graduate study.

DEAN SECTION (Due to the program on January 15)

After completing the Dean Section and signing it, the dean should email this form to the program, and copy uaa_oaa@alaska.edu for posting. If the program is delivered on one or more community campus, the dean should consult with the appropriate community campus director(s) on the response and copy the appropriate community campus director(s) when emailing the response to the program.

1. **Based on the program's responses above, what guidance and support do you have for the program moving forward? Is there a particular area the program should focus on? *(750 characters or less)***

   The program has a robust assessment process that focuses on course-level assessment (CLA). The program has collected what appears to be an appropriate level of CLA. We acknowledge the program's decision not to collect data on SLO5 this round but rather to focus on making course improvements with the intent of assessing the efficacy of those improvements in the next cycle. The BS Geo (and the other ABET-accredited programs in CoEng) are due for a regular 6-year evaulation next fall. Program faculty are encouraged to continue this work and to incorporated it into their ABET self-study report.

   Evaluation of program educational objectives (PEOs) is not covered in this report, but is required by ABET.

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2. **Is there something the program is doing particularly well in terms of its processes for the assessment and improvement of student learning, including the closing of equity gaps, that might serve as a model for other programs? If yes, please explain. You may skip this question.** ***(750 characters or less)***

   The program has a robust process of CLA and a particularly active Advisory Board, which we have used as an example for other programs in CoEng. The program has successfully added an online option to all of its classes during this ABET review cycle.

Dean's signature: DocuSigned by: kenrick Mock 9F62E5B1BB71428... **Date:** 1/18/2022