Academic Affairs
University of Alaska Anchorage

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2022 ANNUAL ACADEMIC ASSESSMENT REPORT FORM
(Due October 15 to the dean)

PROGRAM SECTION (Due to the dean on October 15)

Submission date: 10/12/2022

Submitted by: Grace Leu-Burke Program Director Medical Laboratory Science gleuburke@alaska.edu

Program(s) covered in this report: Medical Laboratory Technology AAS and Medical Laboratory Science 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 Health

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

Specialized accrediting agency (if applicable): National Accrediting Agency for Clinical Laboratory Sciences
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 is phasing in the integration of the core competencies into ongoing processes, including program student learning outcomes assessment. Personal, Professional, and Community Responsibility (PPCR) was integrated into the AY21 Annual Academic Assessment Report. The AY22 Annual Academic Assessment Report now also integrates Effective Communication.

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

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1. A. ***Personal, Professional, and Community Responsibility: The knowledge and skills necessary to promote personal flourishing, professional excellence, and community engagement.***

- **If last year you provided your program's current or planned example of an intentionally designed course, assignment, or activity that develops and showcases the student learning in this core competency, please discuss that implementation and any observations you have regarding how well it is working.** ***(500 characters or less)***

  Research is embedded in MEDT A230 (MLT curriculum), MEDT A303 and MEDT A401 (MLS curriculum). In order to provide students an opportunity to showcase their research and present not only to peers and UAA faculty, but to a wider community audience, the Medical Laboratory Science Department conducts a yearly Research Symposium. Students present via Zoom to a diverse audience, including community and clinical partners throughout Alaska,developing communication and professional skills.

- **If last year you *did not* identify a current or planned example of an intentionally designed course, assignment, or activity that provides students the opportunity to develop and showcase this core competency, please identify one now.** ***(500 characters or less)***

B. ***Effective Communication: The knowledge and skills necessary to engage in effective communication in diverse contexts and formats.***

- **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)***

  In order to engage in effective communication, students must first recognize diversity. Embedded into the curriculum, students evaluate disease risk assessment in public health due to societal bias initiating critical thinking. When asked about disparity in healthcare a student wrote "Diversity advocacy works to curb pre-existing concepts, bridging the gap between our own bias and what is true. By educating ourselves and others about marginalized people's experiences we improve healthcare"

- **Provide your program's current or planned example(s) of an intentionally designed course, assignment, or activity that showcases the student learning in this core competency.** ***(500 characters or less)***

  In recognition of our diverse population the MLT and MLS programs have embedded into the clinical microbiology courses the study of enteric pathogens as it relates to the Alaskan subsistence diet. By studying the public health risk associated with consumption of wild game, both MLT and MLS students recognize the need for research regarding diverse populations in order to be inclusive in our healthcare delivery.

PROGRAM STUDENT LEARNING OUTCOMES

2. Please list the Program Student Learning Outcomes your program assessed in AY22. For each outcome, indicate one of the following: Exceeded faculty expectations, Met faculty expectations, or Did not meet faculty expectations.

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Example: Communicate effectively in a variety of contexts and formats – Exceeded faculty expectations.

Demonstrate entry-level competencies for medical laboratory scientists in the following disciplines: Hematology, Chemistry, Immunology, Blood Bank, Urine and Body Fluid Analysis, Microbiology and Laboratory Operations. - Exceeded faculty expectations

Demonstrate professional behavior including sound work ethics, cultural responsiveness and appearance while interacting with patients and healthcare professionals. Exceeded faculty expectations

Evaluate published studies as an informed consumer. Exceeded faculty expectations

Demonstrate continuing competency by certification maintenance. Exceeded faculty expectations

Use educator skills to create and deliver an instructional unit. Exceeded faculty expectations Use laboratory management skills to plan, organize, staff and cost out a new clinical laboratory service. Exceeded faculty expectations

3. **Describe your assessment process in AY22 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)***

   The program is assessed by core abilities scores measuring professionalism during clinical rotations along with task objectives measuring entry level laboratory skills. Qualtrics surveys were distributed for employers to evaluate newly hired graduates. Exit surveys were given to students to evaluate the overall program and learning experience. Advisory board meetings occurred twice during the academic year to provide faculty conversation with community partners. Faculty meetings occurred six times during the academic year to discuss the assessment process and findings. Academic scores on selected assignments in MEDT A302 and MEDT A401 along with pass rates and content scores on the ASCP national certification exam.

4. **What are the findings and what do they tell the faculty about student learning in your program? *(750 characters or less)***

   Student core ability and task objective scores were 4.84 and 4.75 respectively, exceeding benchmark of 4.0 indicating success in entry level lab skills and professionalism. Student surveys suggested continued confidence in Microbiology. However, they requested increased clinical rotation hours in Blood Banking. Several students noted taking Clinical Correlations provided additional learning opportunities for Hematology and Chemistry, increasing their confidence during clinicals and ASCP scores with a pass rate was 85% exceeding benchmark 75%. Advisory Board members and employer surveys gave 95% positive confidence rate, noting that UAA students were well prepared, professional and proficient with industry level skills upon graduation.

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,**

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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)***

Due to improvement in student satisfaction, Advisory Board confidence and overall ASCP scores, we did not make any significant changes in the MLS or MLT program for AYR 2022-23. However, faculty continue to evaluate course delivery, including accessibility. In AYR 2021-22 MEDT A301 and MEDT A307 were designed using OER/Zero cost materials. Due to strong positive feedback from students, along with increased course assessments, faculty will continue to evaluate current textbook usage with potential for OER adoption.

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 AY22.

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

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)***

MEDT A301 Molecular and Emerging Diagnostics and MEDT A307 Clinical Correlations were redesigned using Open Education Resources and Free to Use materials not only to provide a low cost alternative to traditional textbooks, but to provide content along with industry level standards. IDEA surveys showed 95% positive rating with several students finding clear alignment of course objectives with the OER materials which encouraged completion of reading assignments, increased comprehension, and overall exam scores.

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STUDENT SUCCESS AND THE CLOSING OF EQUITY GAPS

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 across sets of courses, the intentional use of high-impact practices, proactive advising, course scheduling practices, etc.

UAA has selected the below metrics as student success metrics for accreditation.

In response to faculty questions and concerns about reporting on these data without more discussion and training, we will spend AY23 exploring together what equity data are and are not, how they can be used responsibly, and what programs can do to close equity gaps in student achievement on the below metrics, as well as to improve overall student achievement on them. UAA has a team participating in the NWCCU Data Equity Fellowship, and that team will help to guide these conversations.

8. **PROGRAMS ARE NOT REQUIRED TO RESPOND TO QUESTION #8 FOR THEIR REPORT DUE ON OCTOBER 15, 2022. IT IS HERE JUST FOR THEIR REFERENCE.**
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)***

   Since 2019, the Medical Laboratory Science department embedded research into the clinical microbiology courses; MEDT A203 and MEDT A303 and created the MLS Research Team to evaluate data surrounding public risk of urban wildlife. Students active in the MLS Research Team submit and present abstracts on professional guidelines. A 2021 graduate was recently hired as a clinical researcher by the CDC based not only on his academic standing and laboratory experience, but also his extensive undergraduate research background which included an Oxford Press published abstract.

DEAN SECTION (Due to the program on January 15)

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

   The program has done an excellent job of building not only required competencies into the program, but also opportunities for students to engage at a very high level, particularly through undergraduate research. These opportunities have not only developed student skills in the research process, but also UAA core competencies as noted in this report. College administration will continue to support the program in sustaining this research program in the undergraduate curriculum.
   The incorporation of OERs and the assessment of the impact of using those is appreciated and provides a strong example for other programs interested in using this type of teaching tool.

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2. **What is the program doing particularly well in terms of its processes for the assessment and improvement of student learning, for example, the achievement of the Program Student Learning Outcomes, the closing of equity gaps, or addressing the core competencies? *(750 characters or less)*** The program is particularly commended for using multiple mechanisms to collect assessment data including student performance (through multiple measures), student/graduate and employer surveys, faculty feedback, and advisory board feedback. This comprehensive method of assessment is excellent. The program provides very specific outcomes measures that can directly be used to make program improvements and/or assess student achievement. It is also noteworthy that despite excellent board exam pass rates and achievement of program-specific benchmarks, the program has articulated mechanisms for continuous improvement. The program is congratulated for its excellent assessment process.

Dean's signature: Kendra Stidham **Date:** 1/9/2023