

2021 ANNUAL ACADEMIC ASSESSMENT REPORT FORM
(Due October 15 to the dean)**PROGRAM SECTION (Due to the dean on October 15)****Submission date:** 10/15/2021**Submitted by:** Grace Leu-Burke Interim Program Director Med Lab Science gleuburke@alaska.edu**Program(s) covered in this report:** Medical Laboratory Technology AAS and Medical Laboratory Science BS

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):** Select Specialized Accrediting Agency or N/A.**If explanation is necessary, such as only some of the certificates and degrees are covered by the specialized accreditation, briefly describe:** National Accreditation Agency for Clinical Laboratory Sciences (NAACLS) recently passed reaccreditation September 2021 with no deficiencies and a 10 year approval**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)**

Performing research surrounding the environmental impact of urban wildlife embedded into the Clinical Microbiology courses gave students the opportunity to explore relationships between community public health, microorganisms, and infectious disease. Faculty was able to develop required microbial skills, in a real-time, relevant laboratory activity, engaging in critical thinking towards public health risk assessment, and communicating professionally through the UAA MLS/MLT Research Symposium

- **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)

In MEDT A203, students are required to study clinically significant parasites. They ground collect and analyze urban wildlife fecal matter for cryptosporidium and giardia using standard immunoassay techniques. Students gain knowledge in laboratory procedure, but also through this activity have recognized a risk for cryptosporidium colonization in Anchorage's housing insecure who are often immunocompromised, providing discussion on healthcare accessibility and vulnerable populations.

- **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.

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

Demonstrate commitment to laboratory profession through active involvement in a professional organization. Exceeds 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)

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 4.95 and 4.62 respectively, exceeding benchmark of 4.0 indicating success in entry level lab skills and professionalism. Student surveys suggested strong competency in Microbiology and Blood Banking but weaker in Hematology and Chemistry. ASCP pass rate was 80% exceeding benchmark 75%, however, content scores in Chemistry (466) and Hematology (487) were lower than national average (512). Advisory Board members and employer surveys noted students were prepared with comments supporting a MLS program in Alaska, however in July of 2021 board members voiced concerns that current students required stronger didactic skills in core lab. Faculty discussion suggested increasing content in core lab.

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)

Due to lower ASCP content scores, and Advisory Board concerns, we have enhanced MEDT A307 Clinical Correlations towards a more structured content focusing on all biological systems in Fall 2021. We will showcase and present the course redesign during the Advisory Board meeting on

October 16th 2021. Following the meeting, a Qualtrics survey will be conducted to gather feedback on the course change. Student surveys will also be conducted in December 2021 to obtain additional information on course content and delivery. Finally, we will monitor ASCP subject scores in Hematology, Chemistry and continue to evaluate over a three year average.

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)

- 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)**

Flipped classroom in MEDT A204 was difficult to implement during the online pivot in Spring 2020. Student exit surveys indicated a move back to more lecture time, providing additional didactic support. Students who did participate in the flipped model graduated in August 2021 will be taking the ASCP exam. At that time, we will have data to show potential improvement in hematology scores and revisit the flipped model for Spring 2022.

- 8. 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.**

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)**

Research accessibility is important to student success. We had an average student who felt academically he could only complete our two-year program. However, since research was part of MEDT A203, he was able to participate. While conducting research in the microbiology lab, he developed confidence which spring boarded towards creating a case study project. As a 2-year MLT student, he presented his research at both the ASCP and One Health national conferences. He was able to pass his MLT ASCP exam and currently works full time at an area hospital, planning to return to UAA Fall of 2022 to complete his BS MLS degree.

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? Is there a particular area the program should focus on? (750 characters or less)**

The program has done well in using the assessment process to isolate particular content areas that could use strengthening. The use of a range of assessment methods including exam scores, student input, and advisory board feedback is valuable and appreciated. The program articulates a solid plan for making changes and evaluating the impact. The program has done well with using the instructional design resources available to them to explore different instructional methodologies to meet student needs in F2F or virtual learning environments. The program is commended for carefully evaluating where the online learning required due to COVID restrictions remains valuable and where a return to in-person learning is more beneficial to students.

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 incorporation of research into the core coursework is a particular strength for this program. As demonstrated in the program's example of a post-graduate success story, undergraduate research is a high impact teaching practice that has the potential to elevate the success of students. Including all students in undergraduate research, as opposed to only students who are seeking "enhancement" activities, is an excellent way to improve student learning.

Dean's signature:



Date: 12/31/2021