**Biology Program Assessment Plan**

**Bachelor of Science in Biology**

**Bachelor of Science in Marine Biology**

**Bachelor of Science in Fisheries and Ocean Sciences with a Concentration in Fisheries Science**

**Bachelor of Arts in Biology**

Fall 2024

**Program Overview**

The Biology Program faculty have collaborated to develop the Bachelor of Science in Biology,

Bachelor of Science in Marine Biology, Bachelor of Arts in Biology, and Bachelor of Science in Fisheries and Ocean Sciences with a Concentration in Fisheries Science curricula (Appendix A). The last of these degrees is offered jointly with UAF. These degree programs provide solid foundations for students with a strong core in either general biology, marine biology, or fisheries. We provide rigorous curriculum that produces graduates ready to gain employment or pursue graduate studies.

These degrees are designed to serve the needs of three groups of undergraduate students. First, the BS degrees are directed towards students preparing to enter graduate or professional schools. Graduate schools may include any of a number of foci in the field of biological science (e.g., genetics, conservation biology, ecology, physiology, fisheries). Professional schools may include medical, dental, optometry, or veterinary. Second, the BS and BA degrees are designed to serve students seeking entry-level employment in the fields related to biology, including positions at state and federal natural resource agencies. Third, the BA in Biology is designed to serve students preparing to enter the MAT program in secondary education at UAS or other institutions and thus reflects the requirements for certification in science. All of our degrees capitalize on the unique natural setting and natural resources of Southeast Alaska. Many of the courses involve hands-on field and laboratory exercises. Directed student research with a faculty mentor and student internships with natural resource agencies are encouraged. The four program learning outcomes are common to all three of the degrees

**Program Student Learning Outcomes**

Our program student learning outcomes (PRLOs) were revised in AY 24 and sent to the
UAS Curriculum Committee for adoption and inclusion in the next catalog (AY 26). Our revised PSLOs for all four degree programs follow.

By the time students have completed their degree, students will be able to:

1) Describe the fundamental levels of biological organization and their interrelationships.
2) Collect and quantitatively analyze biological data.
3) Communicate biological concepts, principles, and research to other scientists and the public
in written and verbal form.
4) Integrate biological concepts with broader societal issues and solutions.
5) Develop laboratory and field skills through practical experiences rooted in the biological
sciences.

**Assessment Strategy**

We will use a variety of assessment methods to gain feedback on how well our program is providing the PSLOs. Each year, we will assess at least one PSLO and report on it in the Annual Program Report, allowing for assessment of all five PSLOs in each 5-year Program Review. We will collect data using at least one of the ways each year: pre- and post-test surveys in class, grades, and/or questions added to the Student Rating form used for all UAS courses. For the last assessment method, a question will be developed and added to the Student Course Rating Survey for our courses. Each faculty member will have to option to remove the question from the Student Course Ratings Survey if inappropriate for their course.

We will also administer exit survey questions to our graduates in their final semester. The exit surveys will address all of our PSLOs so that we can obtain a summative picture from graduating students at the end of their tenure in our degree programs. The exits survey questions are listed in the Appendix.

**Appendix**

The exit interview questions used in the survey sent to all graduating students in our degree programs include the following:

Your major degree (circle one):   Your final semester at UAS:

   Marine Biology

  Biology B.A.

  Biology B.S.

 Fisheries B.S.

1. What are your career goals?
2. How well do you think the UAS Biology/Marine Biology/Fisheries degree prepared you for this career?

            MORE THAN ADEQUATELY LESS THAN ADEQUATELY
                  1     2   3     4   5

1. Can you explain your preparation in more detail?

2)  Have you participated in the following research activities as part of your degree at UAS?

\_\_\_\_\_\_BIOL 498 or 398

\_\_\_\_\_\_Summer internship (with NOAA, ADF&G, Forest Service, etc.)

\_\_\_\_\_\_University funded undergraduate research fellowship

\_\_\_\_\_\_URECA award

\_\_\_\_\_\_Volunteer work with a faculty member

\_\_\_\_\_\_Paid research assistantship (RA) during the Fall and/or Spring semester

\_\_\_\_\_\_Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Do you feel that you had sufficient research opportunities at UAS?
2. If you did research, how did it impact your educational experience?

3)  Please comment on the preparation you received in:

a) understanding the levels of biological organization and their interrelationships.

      EXCELLENT                             POOR

  1 2 3 4 5

b) collecting and quantitatively analyzing biological data.

      EXCELLENT           POOR

  1 2 3 4 5

c)  communicating biological concepts, principles, and research to other scientists and the public in written and verbal form.

EXCELLENT           POOR

  1 2 3 4 5

d)  integrating biological concepts with broader societal issues and solutions.

  EXCELLENT         POOR

  1 2 3 4 5

e)  developing laboratory and field skills through practical experiences.

 EXCELLENT         POOR

  1 2 3 4 5

4)  Were there one or two courses or academic experiences that embodied the essence of the Biology/Marine Biology/Fisheries degree for you?  If so, which one(s)?

5) Were there any types of degree-related courses that you wish had been offered at UAS that were not?

6) Were you able to finish your degree in the time you expected it to take?  If not, was there something the UAS Biology program could have done to help you finish more quickly?

7)  Overall I am satisfied with my education in Biology/Marine Biology/Fisheries at UAS.

  SATISFIED         UNSATISFIED

  1 2 3 4 5

8)  We like to keep in touch with our graduates to track their career paths.  If you’re willing, please provide a permanent e-mail and a permanent phone number where we might reach you in the future.  We’ll keep the information confidential.