



Date: February 21, 2020

To: John Stalvey, Interim Provost

From: John Petraitis, Interim Dean, College of Arts and Sciences

Cc: Khrys Duddleston, Professor; Director, Biological Sciences
Cindy Trussell, Associate Professor

Re: AY20 Expedited Program Review Findings

Program/s in this review: Biological Sciences BA & BS

Specialized accrediting agency (if applicable): None

Campuses where the program is delivered: Anchorage

Members of the program review committee:

Khrys Duddleston, Professor and Department Director
Cindy Trussell, Associate Professor

Centrality of Program Mission and Supporting Role

UAA's mission is to discover and disseminate knowledge through teaching, research, engagement and creative expression. UAA is committed to serving the higher education needs of the state, its communities and its diverse peoples. It is also committed to instruction at multiple academic levels, success of all students regardless of their higher education goals, and service to the diverse peoples and communities of the state. UAA's core themes are (1) Teaching and Learning, (2) Research, Scholarship and Creative Activity, (3) Student Success, (4) UAA Community, and (5) Public Square. UAA values international and intercultural education, diversity of experiences and perspectives, and the diversity of our unique location in Southcentral Alaska that comes from the Alaska Native peoples of this area.

The College of Arts and Sciences contributes to UAA's mission with a suite of programs that provide, among other things,

1. general education courses for undergraduates in CAS and other Colleges,
2. opportunities for undergraduates to pursue majors in the humanities, social sciences, natural sciences, and the arts, and

3. opportunities for faculty and students to pursue research and creative activities in CAS's academic disciplines,
4. graduate programs for advanced studies.

Given decreased enrollments across UAA and significant budget cuts to CAS, the challenge is to serve UAA's and CAS's missions with only 75% of the funds it had in 2018-2019. CAS's shrinking budget is especially challenging for programs that rely on state financial appropriations through CAS because the programs have a gap between (a) the total costs of everything the program does and needs, and (b) the tuition CAS receives to cover those costs. This describes most programs in CAS: most rely on state appropriates and CAS has 30% less than it had two years ago.

CAS's Department of Biological Sciences contributes to CAS's and UAA's mission through its contribution of Tier 2 general education classes for students across UAA. It is the home to hundreds of students who are seeking the BA-BS in Biology, gives undergraduates and graduate students the opportunity to work closely with faculty on research projects, and integrates graduate students as instructors of record in numerous undergraduate lab courses that serve Biology majors and non-majors across UAA.

Program Demand (including service to other programs), Efficiency, and Productivity

The BA-BS program is in high demand. Since 2013, nearly 40,000 student credits hours in Biology courses (nearly 40% of the Department's total student credit hours) were by students outside of the Biology major, more than any other program currently in CAS. Further, more incoming high-school students select the Biology as their major than any other option in CAS; in fact, at 80 incoming freshmen per year, Biology attracts eight times the number of students as the median CAS department, and with 387 majors in 2019 it is the second most common major in CAS. Undergraduate courses in Biology are also highly efficient with a return on investment more than twice the rate of CAS undergraduate programs, making it the 6th most efficient of CAS's 19 baccalaureate programs. Finally, it is productive, and granted the second most awards since 2013, averaging 40 awards per year.

Program Quality, Improvement and Student Success

Department faculty made substantial revisions to the major, restricting the first-year experience around the BIOL A108 experiential and team-based approach, more experiential courses at the 200-level, and rethinking the structure of pre-requisites so that students can move through the program more efficiently.

Program Duplication / Distinctiveness

With such an important and foundational discipline, UAF and UAS also offer baccalaureate degrees in biology. This duplication, however, is necessary: students must learn biology in the lab and not just online. Moreover, the content that each Biology Department teaches is logically tied to the facilities each department has. As such, all three of UA's universities should retain their separate programs in biological sciences.

Commendations and Recommendations

The faculty are commended for carrying a heavy instructional load, doing so with efficiency, and revising the path into and through the program. The faculty should also be commended for the hard work they put into their expedited program review submission.

Decision

Continuation.