



Date: February 21, 2020

To: John Stalvey, Interim Provost

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

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

Re: AY20 Expedited Program Review Findings

**Program/s in this review:** Natural Sciences 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 appropriations and CAS has 30% less than it had two years ago.

The BS in Natural Sciences contributes to CAS's and UAA's mission by providing an interdisciplinary degree that allows students three paths (Environmental Sciences, Pre-Health Professional, and General Sciences), each with a core and each with flexibility in non-core classes.

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

On average, only 16 incoming students select this major per year, but it now has over 200 majors and it averages 36 graduates per year, the 4<sup>th</sup> highest of CAS's 19 baccalaureate program. In this interdisciplinary program, students do not take course with a N-SCI prefix; instead they take courses with prefixes in BIOL, CHEM, ENVI, GEOL, etc. Consequently, there is no way to quantify the efficiency of N-SCI courses. However, no sections are offered just to serve Natural Sciences majors; instead these students rely on courses in other sciences that are offered as part of those other majors. In that way, the efficiency is infinite. CAS would save nothing by eliminating the Natural Sciences BS and would, instead, lose dozens if not hundreds of students.

### **Program Quality, Improvement and Student Success**

Given that the constituent disciplines that feed into the Natural Sciences BS are strong programs, it stands to reason that the Natural Sciences BS has a solid foundation. Its flexibility allows students to play to their strength and find classes that fit more easily into their schedules. It likely works particularly well for students at UAA's community campuses.

### **Program Duplication / Distinctiveness**

Although UAF's BS in Natural Resources and Environment overlaps with the Environmental Sciences option in UAA's Natural Sciences BS, UAF's program does not overlap with the Pre-Health Professional option or the General Sciences option.

### **Commendations and Recommendations**

Designers of this program are commended for building a flexible but coherent set of options for students. The authors of the self-study are commended for their hard work.

### **Decision**

Continued Review. This program is exemplary as a solution to student success and degree completion in the context of budget cuts. If the BS in Environment & Society is deleted, the Environmental Sciences option in the Natural Sciences BS program will be impacted. Therefore, the Natural Sciences BS should undergo continued review and submit a report in Spring 2021 on how it will adjust to the potential loss of courses from Environment & Society.