**Annual Assessment Report for 2020-2021 AY**

Reports completed on assessment activities carried out during the 2020-2021 AY will be due September 30th 2021 and must be e-mailed to the Director of Assessment, Dr. Douglas Fraleigh (douglasf@csufresno.edu).

Provide detailed responses for each of the following questions within this word document. Please do NOT insert an index or add formatting. For purposes of this report, you should only report on two or three student learning outcomes (department’s choice) even if your external accreditor requires you to evaluate four or more outcomes each year. Also be sure to explain or omit specialized or discipline-specific terms.

**Department/Program:** Natural Sciences BA

**Assessment Coordinator**: Alexandria Hansen ([akhansen@csufresno.edu](mailto:akhansen@csufresno.edu))

1. **Please list the learning outcomes you assessed this year.**

For the 2020-2021 Academic Year, the following learning outcome was assessed: *Students will develop intellectual independence and academic skills that will assist them in continuing to learn after graduation.*

1. **What assignment or survey did you use to assess the outcomes and what method (criteria or rubric) did you use to evaluate the assignment? Please describe the assignment and the criteria or rubric used to evaluate the assignment in detail and, if possible, include copies of the assignment and criteria/rubric at the end of this report.**

To assess the learning outcome above, an alumni survey was administered via Google Forms. This survey was emailed out to Natural Sciences alumni that agreed to be in the alumni database and provided their permanent email address. The survey included questions related to their activities after graduation, such as additional schooling or professional experiences. The survey also included questions to determine if the alumni felt that the Natural Sciences BA degree program adequately prepared them for their current (or desired) career. The alumni data base is newly established and only includes information for students that have graduated within the last three years (2019-2021).

1. **What did you learn from your analysis of the data? Please include sample size (how many students were evaluated) and indicate how many students (number or percentage instead of a median or mean) were designated as proficient. Also indicate your benchmark (e.g. 80% of students will be designated as proficient or higher) and indicate the number of students who met that benchmark.**

Of the 14 Natural Sciences alumni that agreed to be in the alumni database, 6 responded to the alumni survey for a response rate of 43%. The alumni were from the following Natural Sciences Options: 3 Biology, 2 Physics, and 1 Earth Science. No students from Physics responded to the survey. Of the 6 students who responded, all are pursuing a career in science teaching. Each student has gone onto complete a single subject science teaching credential graduate program (one was still in the process of completing). Of the 6 students, 3 also earned a Master’s degree in addition to their teaching credential. This indicates that the students who responded have indeed met the learning outcome identified above – they have shown the ability to continue learning after their undergraduate degree. Moreover, the continued learning aligns with the overall aims of the Natural Sciences program to prepare excellent future secondary science teachers.

Alumni were also asked to indicate how well prepared they felt after graduation for their future careers. On average, students rated their level of preparedness a 4 out of 5. When asked to explain their rankings, many students appreciated the interdisciplinary nature of the degree program and opportunity to begin learning about how to effectively teach science during their time as an undergraduate student. Two students did indicate that they would have appreciated more Education-specific courses.

1. **What changes, if any, do you recommend based on the assessment data?**

No major changes will be made based on the assessment data collected for this report. Overall, despite the low sample size, students reported they were prepared for their future career as a science teacher and appreciate their experiences as a Natural Sciences major while at Fresno State. A couple of students reported wanting more education experiences as an undergraduate, so I (as program coordinator) will do a better job of advertising teaching opportunities for undergraduates. Specifically, I will share regular reminders that students can participate in the Early Field Experience Program offered through the College of Science and Mathematics’ Advising and Resource Center (ARC) as well as the Teaching Fellows program. Both of these experiences would provide additional teaching experience for undergraduate students.

1. **If you recommended any changes in your response to Question 4 in your 2018-19 assessment report, what progress have you made in implementing these changes? If you did not recommend making any changes in last year’s report please write N/A as your answer to this question.**

N/A

1. **What assessment activities will you be conducting during AY 2021-22?**

During the 2021-2022 AY, the SOAP is being revised and updated. This work will be reviewed by the Natural Sciences faculty committee that has a representative from each of the four science areas (Biology, Chemistry, Physics, and Earth Science).

Additionally, the “Views on Nature of Science” survey will be administered in the capstone course, Natural Science 106, during the Spring 2022 semester.

1. **Identify and discuss any major issues identified during your last Program Review and in what ways these issues have or have not been addressed.**

Since our last program review, many of the face-to-face interactions and student events for Natural Science majors and potential students have been limited due to the COVID-19 pandemic. This has prevented some of the suggested activities that were included on our last assessment report from occurring. However, some on-campus events are now being allowed so we plan to continue advertising and marketing this major to increase student enrollment and support of existing majors in their desire to pursue a career in science teaching.