



UNIVERSITY *of* ALASKA ANCHORAGE

# **Occupational Endorsement Certificate (OEC) Conservation Ecology**

## **Academic Assessment Plan Version 2**

**Adopted by**

**Version 1 Biological Sciences Faculty, Dec 2020**

**Version 2 Biological Sciences Faculty, April 2024**

Reviewed by the College Committee with curriculum: 4/22/24

Reviewed by the dean with curriculum: 5/2/24

Reviewed by the Academic Assessment Committee with curriculum: 5/3/24

Reviewed by the Faculty Senate as an information item: 5/3/24

## **MISSION STATEMENT**

The mission of the Conservation Ecology program is to deliver high-quality instruction to Alaskans in the specialized fields of Biology and Ecology that could serve the entry-level and part-time employment sector in Homer, AK. Students will receive vital education and experiential training required in these workforce sectors, and via their internships will be connected with biological organizations in need of employees, meeting the needs of local employers in the short-term and beyond.

## **PROGRAM INTRODUCTION**

Kenai Peninsula College (KPC) is an extended college of the University of Alaska Anchorage (UAA). KPC is accredited through the University of Alaska Anchorage and the Northwest Commission on Colleges and Universities (NWCCU).

For twelve years, the Kachemak Bay Campus (KBC) of the Kenai Peninsula College has held a program called Semester by the Bay (SBB) in Homer, Alaska. Each semester, the program brings in 10 to 20 students from Alaska and the United States to take upper-level Biology courses with hands-on, place-based offerings. This program is unique because it offers students high-impact learning with an internship that gives them real-world experience collecting data alongside researchers.

In this 17 credit university credential, students will learn about conservation ecology in a hands-on environment where climate change is being witnessed. This program of study will have classroom ecology theory, focusing on exploring the real-world application of conservation research. Through internships and seminars, students will work with government and non-profit professionals doing real-time data collection in environmental conservation. This unique program will allow students to glimpse what might lie beyond their college education and will undoubtedly help connect theory to practice.

## **PROGRAM REQUIREMENTS**

Occupational Endorsement Certificate in Conservation Ecology: Certificate Requirements (17 credits)

Global Climate Change - BIOL A446 (3 credits)

Exploration Ecology - BIOL A473 (2 credits)

Experiential Learning: Exploration Ecology - BIOL A459 (4 credits)

Conservation Biology BIOL A483 (3 credits)

Sharing Science with Diverse Audiences ENGL/JPC A278 (1 credit)

Sharing Science with Diverse Audiences Lab ENGL/JPC A278L (1 credit)

Internship in Biological Sciences - BIOL A495A (3 credits)

## **PROGRAM STUDENT LEARNING OUTCOMES**

Students graduating with an Occupational Endorsement Certificate in Conservation Ecology will be able to:

1. Describe and apply basic tenants of conservation ecology and climate change

2. Design and implement a research project to examine applied ecology in the field
3. Describe current issues associated with ecological conservation in Alaska
4. Demonstrate common field and lab skills used by conservation ecologists, as well as ways to communicate science to diverse audiences, including ecologist
5. Demonstrate effective ways to share scientific information to a variety of audiences across written, online, audio, and video platforms, both online and in person.

## ASSESSMENT TOOLS

<b>Tool</b>	<b>SLO</b>	<b>Frequency</b>	<b>Collection Method</b>	<b>Administered by</b>
<b>Entrance Essay/Artifact</b>	1 & 3	Annual upon inception	Application Process	Program Director
<b>Presentation/Poster Session</b>	2 , 4, 5	Annual upon inception	BIOL A484/ A495A/ ENGL A278/L	Faculty*
<b>Course Exam Scores or Individual Assignments or Pre-/Post Quizzes</b>	1, 3, 5	Alternating Years	BIOL A446/ A473/A483 ENGL A278/L	Faculty*
<b>Internship Exit Interview</b>	2, 4, 5	Annual upon inception	BIOL A495A	Internship Mentor
<b>End of Program Reflection</b>	1, 3, 5	Annual upon inception	Exit Requirement	Program Director

\*Conducted & collected by the course instructor and delivered to the Program Director for tabulation, analysis, & reporting

## MEASUREMENT

Formative (course level) – For each course, faculty members will use direct and indirect methods for assessing student learning outcomes.

### *Direct Assessment*

Pre-and Post-course quizzes. For each of the six courses, students will be given an ungraded pre-course quiz to test for general knowledge in each specific area prior to the start of instruction. Questions will be based on information that an average class completer would know. The same exact quiz will be given at the end of term to see the change in understanding for each course.

Exam scores. Scores from courses with comprehensive final exams will be summarized for each student by course and across all courses.

Individual assignments. Each instructor will determine one assignment that will be indicative of a paired course learning outcome.

### Summative (program level)

#### *Direct Assessment*

Presentations/Poster session – This OEC is based upon a model that allows the student to combine theoretical ecological concepts and authentic practice through internships and a field course. At the completion of the program, each student is required to present and defend their internship and exploration ecology experiential learning (BIOL A484) field projects. This presentation/poster session is open to the public and synthesizes all that the students will learn in the program. Student presentations/posters will be evaluated using a rubric (Appendix A) by faculty, their course peers, and voluntary community members at large. At the close of the program students will receive summarized feedback.

#### *Indirect Assessment*

End of program reflection. At the completion of the OEC program, students will complete a metacognitive/reflective assignment that will inform faculty about the usefulness of each course to the larger program.

Exit Interview. Additionally, data from internship agencies which host student interns will be collected as part of each intern's exit interview final evaluation.

### **ASSESSMENT PROCESS**

The program's structure provides opportunities to track student development through both formative and summative assessment. To measure the five program student learning outcomes, we will measure progress toward each outcome in each course (formative) as well as mastery of each outcome as a result of an end of program projects and presentations (summative).

#### **Process**

The application process will include screening applicants for a prerequisite course such as Principles of Ecology (BIOL A271) or Environmental Science: Systems and Processes (ENVI A211), or may be overridden by Program Director approval via an entrance essay and/or artifact demonstrating knowledge of such material. The exit requirement will consist of an end of program oral reflection survey required of all BIOL A495A students which students will video-capture and submit to the Program Director.

Faculty involvement in both formative and summative assessment is critical. Before the program starts in the spring semester, the faculty (adjuncts, voluntarily) will meet and discuss direct and indirect measures of course and program outcomes. This will be an opportunity for faculty to discuss changes to be implemented from the previous year as well as a chance for faculty to share ideas about quizzes, exams and assignments to be used as part of this assessment. At the completion of the program, near the end of the spring, the Program Director will solicit and compile direct and indirect assessment information from faculty, summarize and share student and internship evaluations, and plan for changes or updates for the following spring. Each faculty member who teaches as a part of this program will be required to submit documentation to the faculty Program Director, who will be responsible for reporting.

Most student learning outcomes will be assessed biannually upon inception. SLOs 1 & 3 in courses BIOL A446/A473/A483 will be assessed every other year, on a rotating basis, to cover all outcomes in a two-year cycle. Both sets of information will be useful in determining future changes to the program.

### **Modification of the Assessment Plan**

Assessment Plans will be reviewed periodically by the faculty program coordinator and/or program faculty. If substantive changes are required the plan will be resubmitted through curricular approval processes. Recommended changes will be made that will enhance the program assessment process.