CSUEB Environmental Science B.S. Program Description

Environmental science is an interdisciplinary field, focusing on the study of physical, chemical, and biological processes that underpin both natural ecosystems and human-influenced systems. While their focus is often on the physical and life sciences, environmental scientists must also be mindful of social issues, political context, economic factors, and human well-being in order to understand environmental issues and address environmental problems. The coursework for the Environmental Science degree reflects this broad, systems-level approach, with coursework in science and mathematics, as well as the social sciences. This allows students to gain a deeper understanding of the science and social issues involved in addressing complex environmental problems such as environmental contamination, access to food and safe drinking water, and climate change.

The undergraduate degree program in Environmental Science includes a core of required courses intended to provide students with an understanding of the fundamental principles of biology, chemistry, geology, mathematics, physics, and statistics necessary to understand environmental challenges. In addition, further required courses and electives allow students to apply this fundamental knowledge to broader environmental issues and problems, and to deepen their understanding of natural systems, human systems, and sustainability. The Environmental Science B.S. program serves as preparation for employment in a variety of related fields, both in technical and policy/management roles requiring extensive technical knowledge and background. Due to the breadth of disciplines involved in environmental science, students wishing to do independent work professionally may

Year 1: 2023-2024

1. Which PLO(s)

Year 4: 2026-2027	
1. Which PLO(s) to assess	PLO 2 *(Skills),* PLO 3 *(Analysis and synthesis)*
2. Assessment indicators	ENSC 499 (Seminar) final project, ENSC 397 (Advanced Field course) field report
3. Sample (courses/# of students)	ENSC 499, 15; ENSC 397, 15
4. Time (which semester(s))	Spring 2027, Summer 2027
5. Responsible person(s)	Patty Oikawa, Jean Moran, Emilio Grande, dept faculty
6. Ways of reporting (how, to who)	Reports first to the Chair and then to the entire faculty for comment & discussion. An end-of-year meeting will be devoted to evaluating assessment results and “2 reW 9u(s)-8 (e)5.7 (es)-6.