
Amanda Herbst

EDUCATION

- June 2024 **Master of Environmental Data Science**
University of California, Santa Barbara
GPA:
- June 2022 **Bachelor of Science in Chemistry, Minor in Dance**
California Polytechnic State University, San Luis Obispo
GPA: 3.9

PUBLICATIONS

Menden-Deuer, S., P. Marrec, and A. **Herbst**. 2022. Underway discrete chlorophyll and post-calibrated underway fluorometer data during NES-LTER Transect cruises, ongoing since 2019 ver 1. Environmental Data Initiative.
<https://doi.org/10.6073/pasta/16c8e5937a860c882b524fda73408baf>

AWARDS/SCHOLARSHIPS/ACADEMIC HONORS

- *summa cum laude*
- Frost Scholar Recipient (2018 – 2022)
- President's Honor List (Academic years 2018-2019, 2019-2020, 2020-2021, 2021-2022)
- Alice Tweed Tuohy Foundation Endowed Honors Scholarship Recipient (2018-2022)
- Outstanding Student in Inorganic Chemistry (2022)

RESEARCH EXPERIENCE

Student Researcher in Dr. Bockmon's Ocean Carbon Lab | Cal Poly Chemistry Department

Mar 2019 – Jun 2022

7 hours/week

- Conducted monthly ocean water sample collection for ongoing timeseries at 7 different local coastal sites
- Operated automated acid titration and non-dispersive infrared analysis instrumentation
- Processed, interpreted, and visualized carbonate chemistry data
- Updated and maintained lab protocols and documents

REU Research Intern in Dr. Menden-Deuer's Plankton Ecology Lab | University of Rhode Island

Jun 2021 – Aug 2021

40 hours/week

- 10-week summer internship funded by the National Science Foundation
- Designed MATLAB code to post-calibrate continuous underway fluorometer data from six seasonal transect cruises
- Conducted discrete sample collection on the Summer 2021 six-day transect cruise
- Presented findings at a hybrid symposium
- Published data package in Environmental Data Initiative

Frost Summer Researcher | Cal Poly College of Science and Math

Jun 2020 – Aug 2020

40 hours/week

- Interpreted differences between measured and calculated seawater pH from monthly data taken off the Cal Poly Pier
- Designed MATLAB code to analyze and visualize timeseries data sets
- Presented findings at virtual symposium to audience of 50

PRESENTATIONS

Herbst, A., L. Keller, E. Bockmon, A. Pasulka, Seasonal and Hourly Variability in Chemical and Biological Parameters in San Luis Bay Coastal Waters, *Cal Poly College of Science and Math 2022 Research Conference*, San Luis Obispo, CA, May 12th and 13th 2022.

Herbst, A., Calibrating underway chlorophyll-*a* fluorescence across the Northeast U.S. Shelf for Long-Term Ecological Research, *University of Rhode Island SURFO REU program*, Narragansett, RI, August 13th 2021.

Herbst, A., Interpreting differences between measured and calculated seawater pH, *Cal Poly Frost Summer Undergraduate Research Program Symposium*, San Luis Obispo, CA, August 14th 2020.

EMPLOYMENT

Teaching Assistant | Nov 2022 – Apr 2023 | Vail Resorts

40 hours/week

- Promote an inclusive and positive learning environment for ski school students
- Ensure safety guidelines on the snow and when utilizing mountain equipment
- Provide beneficial support and assistance to customers
- Ensure all aspects of ski school operations run efficiently and smoothly

Substitute Teacher | Sep 2022 – Oct 2022 | Hope School District

25 hours/week

- Instructed grades K – 6th with an average classroom size of 18 kids
- Implemented lesson plans provided by absentee teacher
- Developed and executed lesson plans when plans were not available due to unexpected extended absence
- Created inclusive learning environment
- Maintained safe, constructive behavior through positive classroom management techniques

General Chemistry Learning Assistant | Sep 2019 – Mar 2020 | Cal Poly Chemistry Department

8 hours/week

- Ensured safety in a general chemistry studio class of 64 students during labs
- Worked with students to help them gain an understanding of the subject

- Evaluated 64 student labs and assignments weekly

Camp Counselor | Jun 2019 – Jul 2019 | Arts at Laguna Summer Camp

7 hours/week

- Led 20 campers ages 5-12 through daily art, dance, music, and drama classes
- Created inclusive environment for the campers while encouraging participation in the arts

LEADERSHIP/ACTIVITIES/SERVICE/VOLUNTEER

Alpha Chi Sigma—Gamma Zeta | February 2020 – Jun 2022 | Cal Poly

4 hours/week

- Treasurer (2021-2022)
- Tutored students in general and organic chemistry
- Planned and hosted educational and fundraiser events for the Chemistry department

COSAM Ambassador | March 2019 – Jun 2022 | Cal Poly College of Science and Math

2 hours/week

- Led groups of 10 – 30 prospective students and family on tours of Cal Poly's College of Science and Math
- Represented the College of Science and Math at various University events

RELEVANT COURSEWORK

General Chemistry series, General Physics series, Organic Chemistry series, Physical Chemistry series, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Biochemical Principles, Multivariable Calculus, Introduction to Air Pollution, Gender/Race/Science/Culture/Technology, Sustainable Communities I/II/III