

Rebecca L. Martinez

Undergraduate Researcher and Student Assistant
Environmental Studies Program • University of California, Santa Barbara
Santa Barbara, CA

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Education

B.S. Environmental Studies, University of California, Santa Barbara *Expected June 2026*

A.S. Biology, Allan Hancock College *with honors, May 2024*

A.A. Biology, Allan Hancock College *with honors, December 2023*

A.A. Mathematics and Science, Allan Hancock College *with high honors, May 2021*

IT Fundamentals Certificate, Allan Hancock College *May 2024*

Undergraduate Researcher, UC Santa Barbara – under Dr. Iris Holzer January 2025–Present
Geologic Nitrogen Inputs to Semi-Arid Soils with and without Mammalian Bioturbation

Collected and prepared soil and rock samples for nitrogen and isotope analysis

Trained in rock saw and shatterbox use; prepared powdered samples in foil capsules for lab testing

Reviewed scientific literature and helped develop student learning materials

Research Assistant

UC Davis – UCNRS Sedgwick Reserve Soil Carbon Project (March 2025–Present)
Soil Carbon Stabilization Study

Assisted with pit digging, bulk density sampling, and soil auger collection

Performed USDA soil profile descriptions: color, roots, pores, aggregates

Applied safe sampling protocols and helped maintain positive morale on long field days

Student Assistant

UCSB Office of Education Partnerships (September 2024–Present)

Revised protocols for fog water collection device, 'Fog Harp', project

Collected and managed camera trap data for the Santa Cruz Island Skunk project

Maintained inventory and provided peer mentorship and support

Peer Mentor, UCSB–Smithsonian Scholars Program (June–September 2025)

Mentored students during the ERES Field Workshop at Santa Cruz Island Reserve (UCNRS)

Trained students on field sensors including camera traps, Audiomoths, and GPS

Supported ecological data collection using FAIR data practices

Discussion Leader, Smithsonian Data Science Lab

UCSB–Smithsonian Scholars Program (June–September 2024, 2025)

Led data science instruction in R using RStudio and PositCloud

Emphasized reproducible workflows and data visualization techniques

Supported collaborative learning and student engagement

Participant, UCSB–Smithsonian Scholars Program (June–September 2023)

Completed advanced field methods and data science training at Smithsonian Tropical Research Institute (STRI), Panama, including RStudio/PositCloud instruction

Shadowed researchers to learn ecological field techniques and ongoing projects at STRI; participated in guided ecotourism

Developed an a priori research question and collaborated on a group project: *Comparison of Species Richness and Functional Richness on Barro Colorado Island and Pipeline Road in Panama*

Attended ERES Field Research Workshop at Santa Cruz Island Reserve (UCNRS), focusing on field sensor use and ecological data collection

Teaching and Mentorship

Discussion Leader, UCSB–Smithsonian Data Bootcamp (Summer 2024, 2025)

Guided undergraduates in using RStudio/PositCloud for data manipulation and visualization, emphasizing collaborative learning, equitable access, and open science principles.

Teaching Assistant, Human Anatomy Open Lab, Allan Hancock College (May 2023 – May 2024)

Instructor: Alicia Fox

Managed Friday lab sessions, including setup and breakdown; developed visual study guides, led office hours, and supported human cadaver lab activities.

Embedded Tutor, Allan Hancock College (2020–2024)

Collaborated with instructors to support student success through review sessions, office hours, grading assistance, and tailored study materials.

Courses supported: Botany, Chemistry (Introductory and General), Human Anatomy and Physiology, Cellular Biology, and Microbiology (online).

Lead Tutor and Tutor, Allan Hancock College Academic Resource Center & STEM Center (2019–2024)

Delivered one-on-one and group tutoring in biology, chemistry, math, and general education. Promoted to Lead Tutor in 2020; trained new tutors and hosted workshops on study skills and time management. Supported staff and faculty onboarding orientations.

Leadership and Service

Outreach Volunteer, UCSB Veteran Support Center and She Raised Her Hand (2024–Present)

Assisted with organizing networking events to connect veteran students and women veterans within UCSB's communities.

Science Outreach Volunteer, Allan Hancock College Life & Physical Sciences Department (2022–2024)

Designed and facilitated hands-on science activities for local K–12 students; created educational materials and coordinated event logistics.

Student Representative, Allan Hancock College Hiring Committees (2023–2024)

Represented student perspectives during faculty and staff hiring processes.

Student Representative, Allan Hancock College Title V Committee (2021–2023)

Advocated for student needs in academic program planning; collaborated with faculty and committee members to improve student support services.

Vice President and Community Service Chair, AGS Aquarius Honor Society (2019–2021)

Organized community service projects and fundraisers; developed and maintained an online system for tracking service points.

United States Marine Corps, (2005–2010)

Completed specialized training in land navigation, survival skills, swim qualification, and CBRN defense; developed leadership and operational skills applicable to research and fieldwork.

Presentations

Abstract submitted for presentation at AGU Fall Meeting, December 2025: *Geologic Nitrogen Inputs to Semi-Arid Soils with and without Mammalian Bioturbation*.

Learning from the Ground Up: Mammalian Bioturbators, Soil, & Undergraduate Education, UCSB Environmental Studies 55th Anniversary Symposium, Santa Barbara, CA, April 2025.

Student Speaker, Allan Hancock Foundation Honors Gala, Santa Maria, CA, May 2024.

Comparison of Species Richness & Functional Richness Between Barro Colorado Island and Pipeline Road in Panama, Cal Poly Summer Internship Research Symposium, San Luis Obispo, CA, August 2023.

Comparison of Species Richness & Functional Richness Between Barro Colorado Island and Pipeline Road in Panama, UCSB Fall Undergraduate Research Showcase, Santa Barbara, CA, November 2023.

Awards and Scholarships

UCNRS Field Science Fellowship, 2025

Wenger Scholarship, 2025

Gene & Susan Lucas Undergraduate Research Fund, 2025

G. Allan Hancock Scholarship, 2024

Allan Hancock MESA Scholarship, 2023

Brander Single Parent Scholarship, 2022, 2023, 2024

Joyce Dendo Veteran Scholarship (Inaugural), 2021

Kathleen D. Loly Service Scholarship, 2021

Joan Semelsberger Scholarship, 2021, 2022, 2023

Virginia B. Martinez Memorial Scholarship, 2021

AGS Aquarius Honor Society Leadership Award, 2021

Programs and Affiliations

Bren–Environmental Studies Fellows Program, 2025–2026 cohort

Tau Sigma National Honor Society, Member since 2025

American Geophysical Union (AGU), Member since 2025

UCSB Promise Scholars Program, Member since 2024

UCSB Letters & Science Honors Program, Member since 2024

UCSB Student Veterans Association (SVA), Member since 2024

UCSB–Smithsonian Scholars Program (ERES participant 2023; discussion leader/mentor 2024–2025), Member since 2023

Alpha Gamma Sigma Honor Society, (Vice President 2019–2021 and Community Service Chair 2022–2023), Member since 2019

Association of Colleges for Tutoring & Learning Assistance (ACTLA), Member since 2021

Lompoc Veteran Advisory Committee (LVAC), Member since 2017

Last updated: August 5, 2025

https://rebeccalmartinez.github.io/personal_website/experience.html