

UROC Innovation Scholars

Undergraduate Research Opportunities Center (UROC)



Natasha Oehlman & Angelica Alcazar

HSI Innovation Hub ~ *Cultivating Comunidad*~

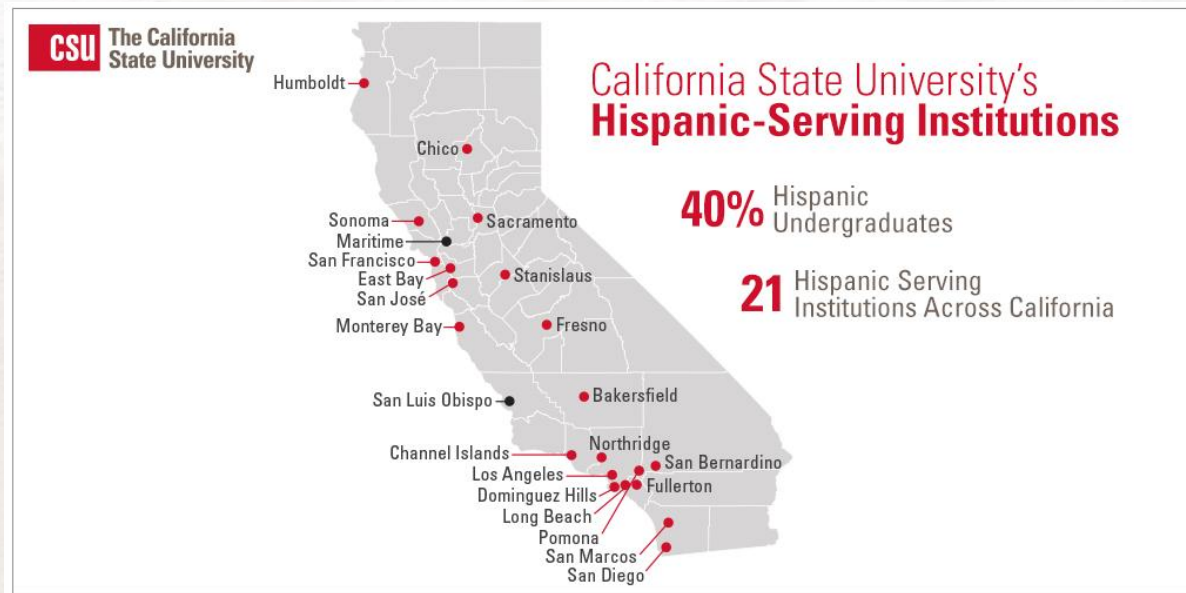
Strengthening Ties Through Research, Innovation and Funding

Thursday, September 4, 2025

Cal State
Monterey Bay

CSU Monterey Bay (Mid-Size)

- Founded on Former Fort Ord Military Base (converted in 1994)
- Predominantly undergraduate (25 undergraduate degrees; 9 graduate majors)
- Designated Hispanic- Serving Institution (HSI)
- 7,200 students



CSUMB Student Body

Demographics

- 38% of undergraduates are from Monterey, San Benito and Santa Cruz counties
- 53% are first generation; 50% Underrepresented Minority
- 72% of students receive financial aid
- 52% percent of our students living on campus.

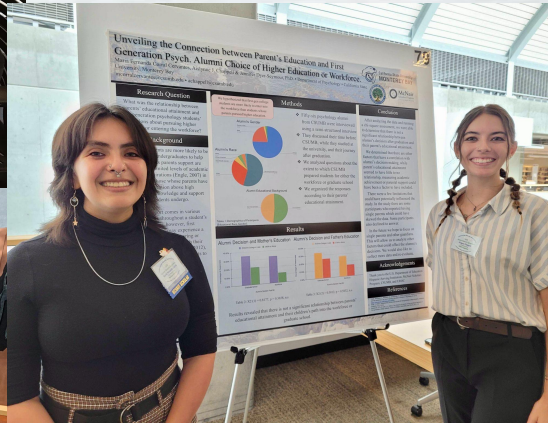
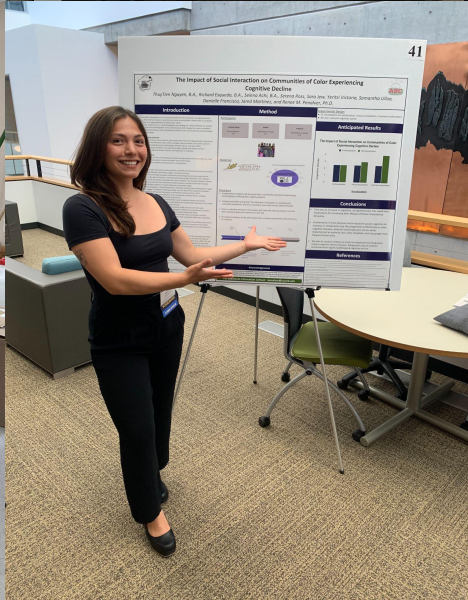
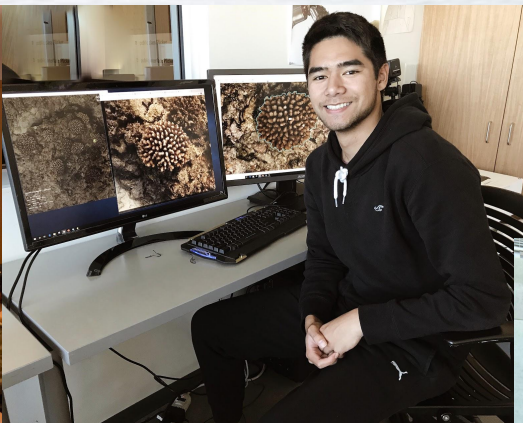


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The Undergraduate Research Opportunities Center (UROC) at CSUMB is a cross-campus center that engages students in **undergraduate research and scholarship.**



Research In the Disciplines



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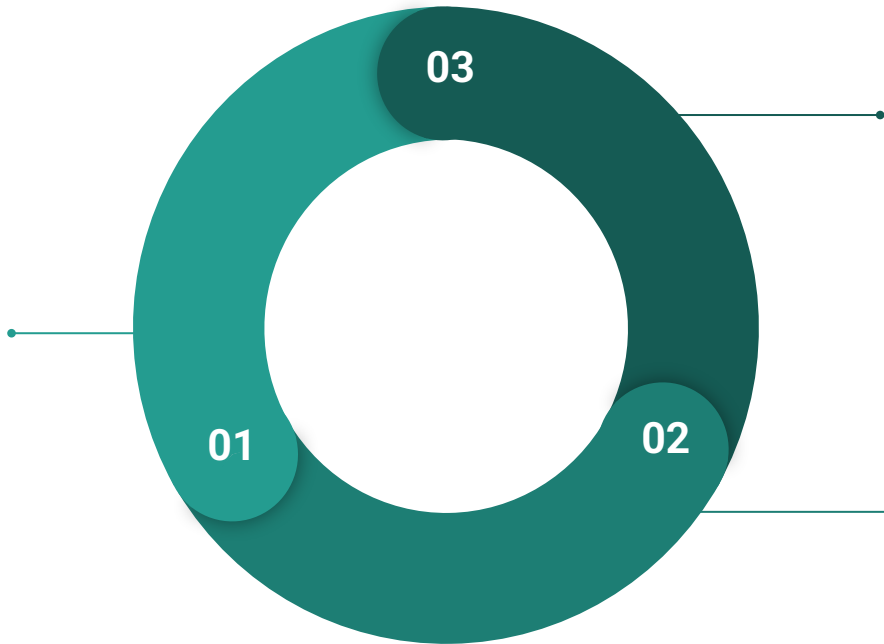
Centering UG Research

Career/Workforce

Undergraduate research provides students with important experiences and networking opportunities with professionals in their field.



National Association of Colleges and Employers



Knowledge

Research helps bridge the gap between classroom learning and real-world application of knowledge.

Grad School

Participating in research will help a competitive edge when applying for graduate schools



Fellowships



BARRY GOLDWATER
SCHOLARSHIP & EXCELLENCE IN EDUCATION FOUNDATION

Knight-Hennessy Scholars
Stanford University




Udall Foundation
CIVILITY, INTEGRITY, CONSENSUS




FULBRIGHT
U.S. Student Program

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UROC Programs

Research Rookies	Exploratory, self-paced, research introduction.
UROC Researchers	1-semester commitment.
Koret Scholars	1-year commitment, social science focus, cohort-model *structured for students intending to go to graduate school.
UROC Scholars / McNair Scholars	2-year commitment, 4 courses, intensive, cohort-model *structured for students intending to apply to doctoral programs.
UROC Innovation Scholars	3-semester commitment, structured intensive cohort Aim: to support Latinx academic persistence and career readiness in STEAM.

UROC Innovation Scholars



Program Goals

- Improve retention and graduation rates for Hispanic STEAM students
- Help students create a STEAM identity
- Help students promote themselves for grad school/STEAM workforce
- Help students develop valuable research and tech skills
- Create a sense of belonging for students in STEAM and research



Programming

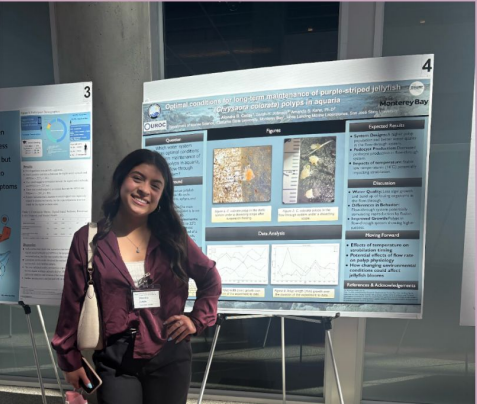
- Provide technology (Apple products, laptop, ipad, pencil)
- Facilitate workshops and direct peer support for e-portfolio development.
 - Monthly meeting with the Apple Educator Team
 - Peer mentoring.
- Faculty-mentored research.
- Funding to present at national conferences and meetings.
- New: *Otterly Curious* Podcast to highlight research voices.
- Supporting 36 unique students over two years of funding.

Eportfolios: STEAM Identity

I am a first-generation Latin-x college student majoring in Psychology at California State University, Monterey Bay. Being a part of the LGBTQ and Deaf community, I have accomplished many things like, achieving two associate's degree in psychology and in Behavioral Science at Modesto Junior College. As a Psychology major and Innovation Scholar at CSUMB, I've had the unique opportunity to apply both analytical and creative thinking across academic, research, and collaborative environments. Through roles such as a student assistant with the Student Disability and Accessibility Center (SDAC), an undergraduate researcher with UROC, and an Innovation Scholar, I've been able to integrate my passion for understanding human behavior with research experiences that explore cognitive, emotional, and social processes across diverse contexts. This ePortfolio showcases my development as an undergraduate researcher and highlights the academic and experiential milestones that have shaped my journey.



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Hello! My name is Alondra Casas Navarro and I'm an undergraduate student at California State University, Monterey Bay majoring in marine science with a minor in cinematic arts & technology, and a strong background in chemistry. I'm from Santa Clarita, CA and I have been passionate about Marine Science since I was a young girl. One of the things I love most about the ocean is how much we don't know about it (yet). Some of my other interests are music, getting out of my comfort zone, and photography.

My research experience has been with a variety of marine life. This includes studying the environmental impacts on Sea Turtle reproduction in Costa Rica, specifically Olive Ridley sea turtles, Green sea turtles and Leatherback sea turtles. I have also studied human disturbance and anthropogenic effects on Sea Otter populations in the Monterey Bay area. However my passion doesn't stop there as some of my other interests include: marine mammal ecology, conservation biology, and the environmental and ecological

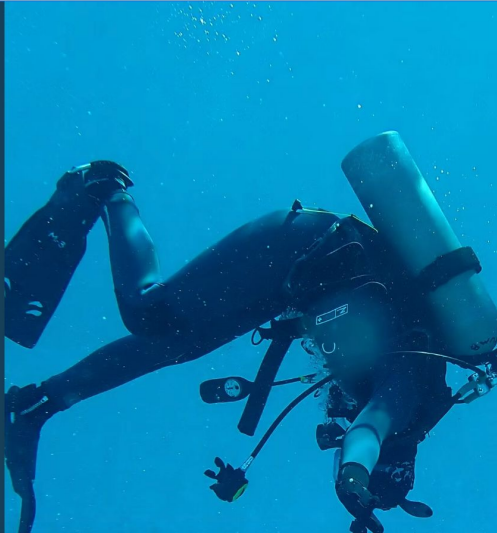
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Diving In

[Read More](#)

Welcome to my Portfolio!

I'm an undergraduate Marine Science student at CSU Monterey Bay, and this site is a space to share my academic journey, hands-on experiences, and professional goals. From coursework and research to diving certifications and outreach work, this profile highlights the skills, projects, and passions that shape who I am as a student, scientist, and communicator. Whether you're here to explore my work, learn about my background, or connect professionally, thank you for visiting!





Achsah Jojo

Artificial Intelligence Researcher

[Let's Chat!](#)

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AI Auto Completion: Your Debugging Frenemy

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Explore the Journey


Angelica Alcazar

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Angelica Alcazar

Undergraduate Researcher at Cal State Monterey Bay


Hello, my name is Angelica Alcazar and welcome to my ePortfolio! I am currently a fourth year at California State University, Monterey Bay pursuing a major in Molecular Biology and a minor in Chemistry. I am actively involved in the [Undergraduate Research Opportunities Center](#) and proudly served as an [Innovation Scholar](#), advocating for LatinX and other minority groups in STEM. I am now dedicated to helping current Innovation Scholars develop their own ePortfolio. In my ePortfolio you can learn more about my academic journey, professional achievements, and research projects that highlight my commitment to exploring innovative ideas. Explore and discover how my journey aligns with your needs and expectations, thank you for visiting.

Angelica Alcazar

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Research & Presentations

Quantify emissions, reduce N fertilizer impact

CV >

Haffa Lab

January 2024 - January 2025

At the **Haffa lab**, the research focus is on quantifying nitrous oxide and carbon dioxide emissions to compare various treatments aimed at reducing nitrogen (N) fertilizer usage. The goal is to identify the most environmentally efficient solutions to minimize greenhouse gas (GHG) emissions in commercial agricultural fields without impacting crop yield. Through direct experience in the lab, I've developed skills in data collection, instrumentation, and environmental analysis; skills I hadn't encountered in a classroom. Working on this project has helped me understand how scientific research can address broader environmental and public health challenges, like global warming and nitrate leaching in the Salinas Valley.

My research interest includes:

- Sustainable agriculture research focused on measuring greenhouse gas emissions from soil and evaluating nitrogen fertilization strategies to reduce N fertilizer use and mitigate environmental impacts.



Learn more here! 

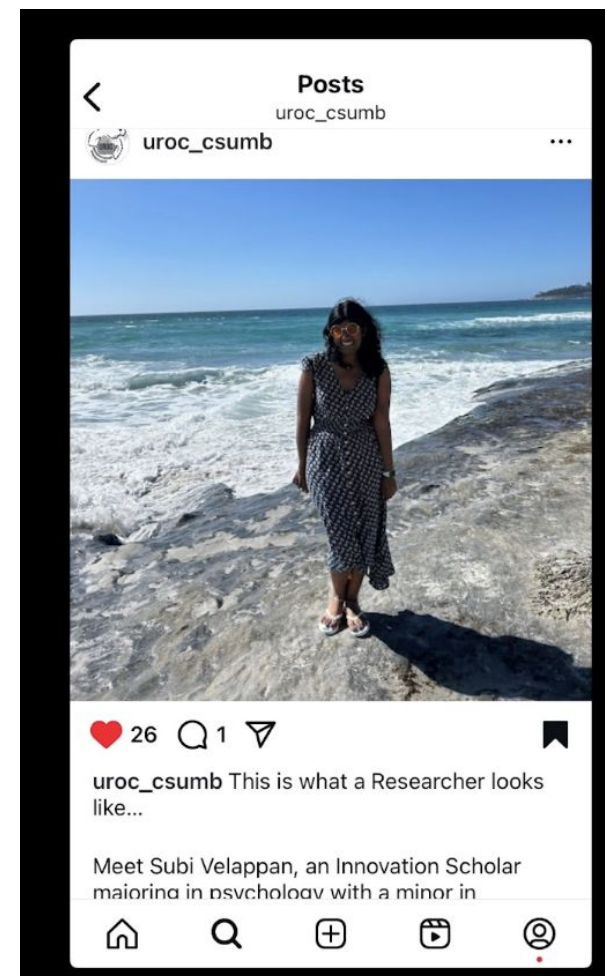
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Cultivating Scholar Identity

2024 GMIS - Rafael L.S. Reis Story



I'm thrilled to share that my team won **2nd place at the NASA-sponsored STEM Zone Competition at Great Minds in STEM!** Working alongside such talented individuals was an incredible experience, and I deeply appreciate my amazing teammates for their hard work and dedication. I also had the honor of presenting my research, titled "Impact of Energy Consumption Awareness on Student Programming Efficiency and Ethics," which explores how making students aware of the energy impact of their programs can influence their programming practices and ethical considerations. This project was made possible thanks to the invaluable guidance of my PI, Dr. Joshua Gross, whose support and mentorship have been instrumental in shaping my research. Additionally, I am honored to have been awarded a scholarship as part of the prize.



Spring 2025 Themes

Professional and Academic Support

Significant growth in professional development, research experience, and academic clarity.

Program **pivotal in shaping** their career such as: graduate school pathway, securing employment, or refining their research identity.

Students frequently mentioned **support with applications**, CV development, and research communication skills as standout elements.

Strong Mentorship and Support

Students appreciated staff **approachability, commitment, and personalized support** in both academic and logistical areas.

Community and Belonging

Transfer students and those new to research emphasized the **importance of the program's community-building focus**.

Sense of belonging **often translated into greater confidence** in research settings.

Spring 2025 Themes

Confidence in Science Communication

Confidence in scientific communication:

Boosting their confidence, refining their communication skills, and enabling them to **clearly and effectively** share their research ideas to a varied audience.

Conference and Dissemination

Benefited from opportunities to **travel to conferences** and competitions **broadening** professional networks.

Experiences **were especially meaningful** for **first-time researchers in STEM**.

UROC should continue travel funding and conference support.

Apple Technology

Apple devices (iPads, MacBooks, Apple Pencils) integrated into academic workflows. **Portability** favored.

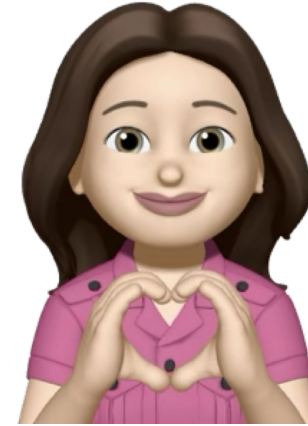
Discovered new creative capabilities (e.g., photo editing, professional image capture) that **enriched their professional materials** and presentations.

Student Responses (Spring 25)



Stephanie (Effy)

“The program has empowered me to embrace my identity as a person of color, a woman in STEM, and a first-generation student. Before joining, I struggled with imposter syndrome, but through this experience, I gained the confidence to recognize my place in these spaces.”



Alondra

“A big part of research is my identity because I want to be a good representation to my community [the hispanic community] and be able to connect my background to my future.”

***Otterly Curious* ~ Podcast**

**"Realizing and understanding
radical social theory"**
– Jourdan Garnier

**"Creating a brighter future
one seed at a time"**
- Joe Perez

**"AI Auto Completion:
Your Debugging
Frenemy."**
– Achsah Jojo

**"Quantify emissions, reduce N
fertilizer impact"**
– Angelica Alcazar

- **5 episodes**
- **2 peer
mentors**

**"Small invaders can create
huge impacts"**
– Liam Campbell

Questions for us?



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