

# THE GREEN



# TITAN

JAN/FEB 2023

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## IN THIS ISSUE

STUDENT RESEARCH  
PROJECTS

INTERNSHIP  
EXPERIENCE

NEW  
ENVIRONMENTAL  
JUSTICE CLUB

ASI ENVIRONMENTAL  
SUSTAINABILITY  
COMMISSION



csufenvironmental\_studies



## A NEWSLETTER OF THE ENVIRONMENTAL STUDIES PROGRAM AT CALIFORNIA STATE UNIVERSITY, FULLERTON

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Welcome back to campus! In this January/February issue, we highlight student research projects, a current student's internship experiences, the new Environmental Justice Club on campus and more.

Additionally, the ENST Masters Program is now taking applications for the incoming year. Many of you (students) found the program via alumni and now is your chance to help others learn about the program. Current students like you are often the best individuals to tell prospective students what your experience was like, to answer questions, and provide advice on how to navigate the program. To improve program recruitment, the ENST department has created a new LinkedIn group, recorded a testimonial video with alumni, and has established a new campus club, the Orange County Association of Environmental Professionals, CSUF student chapter.

**Watch testimonial video to learn more about the Master of Science Environmental Studies Program from Alumni**



# Student Research Projects

By Jazmin Rodriguez

Current students completing the ENST program are working on incredibly interesting projects. Here's a sneak peek to the first batch of student research projects!

## Avalon Andrews

Avalon is working with Dr. Sara Johnson on, *"The Allelopathic Potential of Sweet Potato Cultivars: Suppressing Invasive Weeds with Agroecological Farming,"* conducting research at U-ACRE--the service learning farm at the CSU Fullerton Arboretum. Avalon has been observing purple nutsedge, a highly invasive weed that infests the learning farm and investigating whether sweet potatoes can be natural toxins limiting purple nutsedge.

Allelotoxins – or naturally-occurring chemicals affecting neighboring organisms – are “usually present in the roots and in the vines” and used “to suppress invasive weeds,” in a “agroecological practice which comes from Indigenous knowledge,” Avalon explains.

Avalon was first introduced to this topic while participating on the farm to complete the mandatory service learning hours for the course “Sustainable Urban Food Systems.” Mitsue Escobar, ENST 2022 alumna, was



(Above) Avalon holding purple nutsedge in sweet potato project research area at CSU Fullerton Arboretum service learning farm.

(Below) Observation of purple nutsedge condition under microscope.



studying allelopathy in vardaman sweet potatoes and its effect on nutsedge. Avalon became one of Mitsue's primary assistants with field data collection and quickly became dedicated to the research. “I openly expressed to Mitsue that I wanted to continue this research. She then told me that the sweet potato project was in fact an ongoing project that she had inherited from a student who was working on this project the year prior. It turns out that U-ACRE has been studying this since 2017, the first student was Alison Wilson. I was informed that Dr. Sara Johnson, director of U-ACRE and our professor, felt that I would be a perfect candidate to take over the project for the next season if I was interested in doing so. Hearing this, I was so excited and a bit overwhelmed, knowing that I now had a set graduate project and space to conduct my own unique research.”



(Above) Vardaman sweet potato project research area at CSU Fullerton Arboretum service learning farm.

Avalon offered these final reflections: “The ENST program overall has been very supportive of my project and of my research goals beyond this project. Advisor Dr. Nicole Seymour and program chair Dr. Elaine Lewinnek encouraged me to apply for a PhD program in Environmental Health Science for Fall 2023 to continue this type of research, which I did! I don't think I would have done this without the encouragement from them as well as from my advisor Dr. Sara Johnson and from my colleagues at U-ACRE and in the ENST cohort.

The most important piece of advice I can give my peers is simple, but nonetheless true, and that is to stay organized. It's advice everyone hears but never actually does, or at least in my case that's how it always was, but organization will ensure your project is very successful. Write down everything and anything. and do it immediately. Even if at the moment you think it's irrelevant for your project, or excess information that won't be used or presented in your study, write it down anyway.”

## Ifeyani Williams

Ifeyani is working with Dr. April Bullock on her project, “*Are California native pollinator plants more effective at attracting pollinators than non-native plants?*.” Ifeyani’s research project involves quantitative research and will include the identification of the types of pollinators as well as their visiting frequency. Ifeyani chose this topic because of her interest in horticulture, biodiversity, urban agriculture, and sustainable development. “I wanted to find a way to connect all of these into one project in a way that can be easily replicated for anyone interested in integrating California native, drought tolerant plants that also have other beneficial uses into their landscape.” Ifeyani explains.

When asked how the program has influenced her research, Ifeyani shared that the program courses have overall been invaluable. “I’ve learned a lot about pollinators and biodiversity in the core courses offered in the program, along with guidance from ENST-affiliated faculty. I have also worked on my project while simultaneously learning about topics related to my project in the “Food and the Environment” course with my advisor, Dr. Bullock. In addition, working with Dr. Johnson and U-ACRE helped guide and refine my project into a plausible and effective project that could be done within a reasonable amount of time.” Ifeyani states.

Lastly, Ifeyani conveys a final token of advice: “Take courses that relate to what you want to do your capstone project on. Not only will you gather more information and inspiration for your research, but you’ll also have the chance to network with faculty members and find an advisor for your project.”

## Martika Orozco

Martika is working with Dr. Sarah Grant from the Department of Anthropology on her project on the topic of active jack pumps across Los Angeles County. Martika’s project will be in a photo essay, a form of visual storytelling presenting a narrative through a series of photographs based on data gathered from specific locations.

Martika’s inspiration for this project began when she witnessed environmental justice issues within her community. “Dr. Nunez, my mentor, guided me to investigate environmental justice further, which made me think critically and question environmental injustice within the Latinx community, which was the beginning spark of my project. I settled on this specific project when I did a photo essay for a final assignment last semester with Dr. Grant in an Environmental Anthropology course. I want to better understand the history and eerie normalcy of the active jack pumps that still exist today in public parks, residential areas, and schools.” Martika said.

**“I want to better understand the history and eerie normalcy of the active jack pumps that still exist today in public parks, residential areas, and schools.”**

Martika explains how this program’s courses helped to further her knowledge and skills leading her to decide on a project. “I took courses that caught my interest. I took the “Intro to GIS” course, “Environmental Photography” and “Environmental Anthropology” and completed an internship in Chicana/o Environmentalism. I have taken a small amount of everything I’ve learned, from GIS mapping, to environmental justice, and my expanded photography skills and knowledge and have applied them to my project.”

And to anyone considering a research project, Martika shares, “Do your research, trust your scholarly instincts, and do not get discouraged if you don’t get a response for your project. When a door closes, there will be another door that opens!”

## Calvin Nguyen

Calvin is working with Dr. Sara Johnson on his project “*Establishing a Community of Practice for Food Waste Diversion through Vermicomposting Across Diverse Stakeholders.*” Data collection includes measuring the worm population, food waste diverged from the waste

management plan, and other variables, as well as conducting surveys from community partners of the successes and challenges they had in implementing the vermicomposting program in a classroom and restaurant setting. He is working with ENST alumna, Rebecca Bonet, at Valencia High School as well as the community nonprofit business Monkey Business Cafe, which provides job-training to youth exiting the foster care system.

Calvin said he was unsure of what he wanted to do for a project until he was introduced to the topic in a lecture by Dr. Sara Johnson. “She gave me the opportunity to oversee the reestablishment of several vermicompost units. One semester later, I am now arms deep in worms, compost, food waste, and research.” Calvin states. The project has already seen some success as Calvin has helped Monkey Business Cafe restart their vermicompost units. That is not without challenges and roadblocks, however. Calvin expresses that the most challenging aspect he has learned from working on this project is working with many stakeholders: “In the past, my projects usually involved one or two members, but currently, I am working with five major partners. Being a centerpiece, juggling time to meet with and satisfy everyone, was mentally draining when I was so used to working by myself and an advisor. I know I am getting better at this, and the results will show when I present my project.”

Lastly, when asked how the program has influenced his research, Calvin conveyed that his exposure to diverse courses was key. “The ENST program is very multidisciplinary, so I was exposed to many different departments on campus, which gave me the opportunity to meet Dr. Johnson, and she helped me focus my interests on a topic for my project.” Calvin says.



(Above) Vermicompost.



(Above) Calvin working with vermicompost.

To learn more about any of the above research projects or other current projects, join the ENST program on May 11, 2023 for student project presentations. Additional student projects will be featured in the next newsletter as well.

Students in the Environmental Studies (ENST) program have the option of doing a comprehensive exam, project, or thesis upon completion of the Masters Program. Because the program is interdisciplinary, prior student research has included everything from topics in climate action, groundwater modeling, wetlands, and more.

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## Internship Experience

Guest Article By Ashley Alamo

Hello everyone! My name is Ashley and I am a second-year in the environmental studies program. I have had the opportunity to be an intern on two different occasions and was asked to share what those experiences were like for me. My first internship was with the Inland Empire Utilities Agency (IEUA), a municipal water district that services the Inland Empire.

The way I found my internship at IEUA was a bit out of the norm. Their office is located by the Sam's Club that my parents used to go to every Saturday. So when I switched my major from Biology to Environmental Science and Policy at UCI in my undergraduate studies, my parents suggested I look at their website for internship

opportunities. I then applied when there was an opening on the environmental planning team, was hired on as an intern and currently work there now. My day-to-day tasks at IEUA can vary depending on what is happening in the water industry at the time. I typically support senior level staff with their tasks, but occasionally we have urgent tasks relating to drought that will take precedence. Overall, my tasks will typically include working in excel to track water use data, researching regional or state actions relating to drought for board presentations, and writing annual reports.

Working at IEUA has allowed me to enhance and develop several skills. At the beginning of this internship I was unfamiliar with many of the functions in Excel. However, with the amount of data I was working with, I learned how to use formulas, filters, and pivot tables to better organize and display the data I was working with. Additionally, after working at the IEUA I have learned that certain topics and projects can get very political when discussed, and there are subtle nuances that I need to be aware of when creating presentations or sending emails to outside agencies. Overall working at IEUA has been a pleasure and I have made valuable connections in the industry.

My second internship was with a local environmental consulting firm over the course of the summer. I originally found the posting for the internship on LinkedIn and applied. I was interviewed twice—once with HR and once with the team I was going to be working with and then started in the summer. The type of work I was doing at this internship was very different from what I did at the IEUA. I did not work in Excel much, but I did learn how to write Environmental Impact Reports (EIRs) which are environmental documents that ensure compliance with the California Environmental Quality Act (CEQA) and identify potentially significant environmental effects on proposed development sites.

My mentor at the consulting firm helped me learn how to take technical topics that are covered under EIRs like agriculture, hydrology, or minerals and write in a way

that the public can understand, as well as avoid any statements that may imply something will never or will always happen.

**“Some advice that I would give to anyone seeking an internship...is to apply to everything!”**

Some advice that I would give to anyone seeking an internship or anyone unsure of what they want to do long-term is to apply to everything! I applied to countless positions before ever getting an interview. I also would say to consider longer term internships—they are rare but will allow you to get to really know whether or not you want to continue working in a field. You don't have to stay for a year, but for me personally it is hard to determine after only three months whether I want to do something long-term. When I was an intern for the consulting firm it was a summer internship, and the first month I was mainly getting comfortable and learning. Then by the third month I was finally comfortable and confident in the work I was producing, but it was time to leave! Although it was a short experience I was able to learn a new style of writing that will be relevant in most job fields and met mentors that are open to helping me with my career.

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## New Environmental Justice Club

By Alisa Toh-heng

Our campus has a new student club, Environmental Justice (EJ), focused on addressing environmental inequities. This club evolved from a discussion in Professor Christopher Gibson's graduate seminar in sociology, which covered topics on Environmental Sociology, the governance of natural resources, and running of public institutions. The class had a discussion considering the question: "What can they do to act on our interests and concerns at a local level?" From this question, the EJ club came to fruition and formed the following objectives—to build community, raise

awareness on environmental justice issues, engage in political activism, and create opportunities for student-faculty research collaborations.

The Environmental Justice Club is open to all CSUF students. To join, email club advisor, Professor Gibson at [cwgibson@fullerton.edu](mailto:cwgibson@fullerton.edu) or club president, Sonny Bianchi [sonnybianchi@csu.fullerton.edu](mailto:sonnybianchi@csu.fullerton.edu). Check out their instagram page at [@ejclubatcsuf](https://www.instagram.com/ejclubatcsuf) for more information and upcoming events.

**SPRING 2023**

**"Climate change is not just a problem for the future. It is impacting us every day, everywhere."**  
- Vandana Shiva

**MEETINGS**  
Second and Fourth Thursday Every Month  
Location: Humanities-113  
Time: 12pm-1pm

**ENVIRONMENTAL JUSTICE CLUB AT CSUF**

**1/31 - 2/1**  
Discoverfest  
Time: 11am-2pm  
Location: Titan Walk

**2/9**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**2/23**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**2/25**  
Event: Understanding Native Ecology  
Location: Fullerton Arboretum  
Collab: Arboretum & Members of Acjacheemen Tribe  
Time: 11am-1:30pm

**3/9**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**3/18**  
Event: Understanding Latinx Issues  
Location: SGMH-1303  
Collab: Chispa  
Time: 11am-1pm

**3/23**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**4/6**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**4/15**  
Event: Black Experience in EJ  
Location: SGMH-1303  
Collab: CSUF Professors & BSU  
Time: 11am-1pm

**4/20**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**4/22**  
Earth Day

**5/4**  
Meeting  
Location: Humanities-113  
Time: 12pm-1pm

**5/19**  
Senior Ceremony  
Location: TBD  
Time: TBD

(Above) The Environmental Justice Club's Spring 2023 Calendar of Events.

**Join OCAEP at CSUF today!**  
**You can join us on TitanLink using your CSUF login credentials.**



# ASI Environmental Sustainability Commission

By Alisa Toh-heng

CSUF's student government, the Associated Students Inc. (ASI), has an Environmental Sustainability Commission working on ways to make the campus greener. Led by Psychology-major and ASI Executive Board member Joshua Castelo, the commission is currently planning events for Earth Month in April. Joshua has a strong belief that "going green isn't about using metal straws and hydro flasks, it's about who we are partnering up with on campus to reduce carbon emissions" as well as "looking into ways to make the campus friendlier to our earth. It's crucial that we start on our campus to make our earth greener for future generations." If anyone has ideas for earth week or other events, feel free to reach out to Josh at [asiccro@fullerton.edu](mailto:asiccro@fullerton.edu).

Learn more about ASI and how to get involved with student government at <https://asi.fullerton.edu/student-government> or check out their instagram at [@asicsuf](https://www.instagram.com/asicsuf).

*Thank you to everyone who contributed their time including Ashley Alamo, Joshua Castelo, the EJ Club, and the students from our existing cohorts. You made this issue possible.*

*If you have any suggestions, ideas, or would like to write a guest article, please don't hesitate to contact us.*

*If you would like to join the newsletter editorial team, please email Jazmin at [jazminr6171@csu.fullerton.edu](mailto:jazminr6171@csu.fullerton.edu) for more information.*

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