

2020 CSUDH OUR Summer Research Awardees

The mission of The Office of Undergraduate Research is to enhance undergraduate student participation in research, contributing to the improvement of student outcomes by developing and supporting faculty-mentored original investigation within and beyond the curriculum.

Each summer, CSUDH students apply to and are competitively selected to participate in fully funded summer research internships such as the Research Experiences for Undergraduates (REU) programs throughout the country. Last summer, many REU programs as well as other similar programs were cancelled, and many CSUDH students who were planning to conduct faculty-mentored summer research under the support of a stipend, no longer had that option. In lieu of funding students to travel to conferences, the Office of Undergraduate Research funded seven students to conduct summer research under the mentorship of CSUDH faculty. Student awardees presented their research findings at the annual 2021 CSUDH Student Research Conference (SRC).



Valeria
SRC second place awardee

Student: Valeria Arredondo Segura

Major: Mathematics

Class Level: Senior

Research Project: *Agreement and Piercing Numbers in Discrete Societies*

Research Mentor: Carolyn Yarnall, Department of Mathematics

My experience in the OUR research program has benefited my education immensely. Through this program, I was able to learn mathematics in a way that differs greatly from what one would learn in the classroom. Through regular meetings, generating and justifying examples, and implementing my knowledge of proving mathematics, I was able to work with mathematics hands on. In the average mathematics

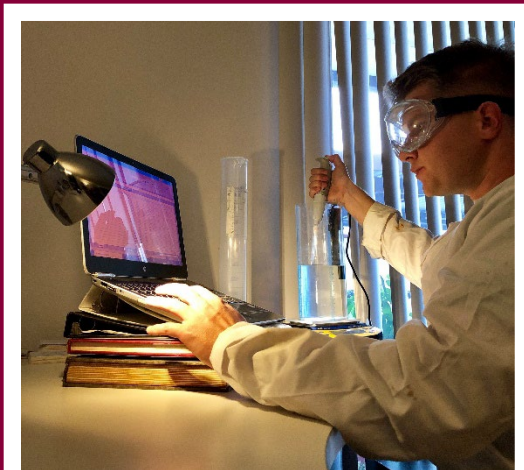
classroom, there is a set end result and this research has shown me the value and beauty of trial and error. There is no concrete result when it comes to researching mathematics, which allows the researcher to be in control of the methods used, as well as, make predictions, and question the results as one goes. This research program has allowed me to see the beauty of mathematics through a different lens. A lens that might turn out to be NP hard.

Student: Michael Franco
Major: Earth Science
Class Level: Junior
Research Project: *Habitat Distribution of Bristlecone Pines (Pinus) in Future Climate Change Scenarios*
Research Mentor: Parveen Chhetri, Department of Earth Science and Geography

The opportunity to research a topic that is of personal interest has been an enjoyable experience. A quote that has been attributed to many throughout history is “do what you love and you will never work a day in your life.” I would have to say that the support offered by the Office of Undergraduate Research made this a reality for me over the summer. Being a student who also works presents challenges. Usually the contrast between what I am doing at my job and school makes for a difficult work to academic transition. I did not have this feeling of compartmentalization with my summer research, instead it offered an experience that welcomed a glimpse of a work life where I am able to apply my time and effort to areas of interest that I am passionate about.



Michael
SRC first place awardee



Kevin

Student: Kevin Kausen
Major: Biology
Class Level: Senior
Research Project: *Side Illuminated Liquid Level Optical Fiber Sensor for Hydroponics*
Research Mentor: Claudio Egalon, Department of Physics

In the middle of Spring 2020, the COVID-19 pandemic hit the United States. This unfortunate event caused nationwide campus closures and ultimately stopped my current research at CSUDH dead in its tracks. The OUR Summer Research Program gave me a second chance to finally complete something I had worked so hard to achieve in the time prior to COVID-19. This program has provided me the opportunity to work hands-on with the scientific method and march towards a meaningful goal

with great potential impact. I'm looking forward to meeting with all the other student researchers in Spring 2021 for Student Research Day and sharing my experience with the OUR. Thank you all for the wonderful opportunity!

Student: Tania Lugo-Flores

Major: Psychology

Class Level: Senior

Research Project: *Chronic Administration of Ethanol and the Brain: A Role for Δ FosB?*

Research Mentor: Philip Vieira, Department of Psychology

I would like to thank the OUR for funding my research over the summer. Over the course of the summer, I learned how to sleep score EEG and EMG waves, I learned how to use Matlab and Python for data analyses and I was able to attend journal clubs. I was also able to write a paper that I intend to publish soon with the help of my mentors. I was also able to make progress on my research, for which I hope to present on Student Research Day 2021. Because of the OUR program, I feel like I have become a better researcher and scholar.



Tania



Anthony

Student: Anthony Onwuegbuzia

Major: Sociology

Class Level: Senior

Research Project: *Catching Fades: An Examination of Black Barbershop Culture and Black Masculinity*

Research Mentor: Edward Robinson, Department of Africana Studies

This summer, I had the fantastic opportunity to participate and to be funded by the OUR research summer program for an independent research project that I conducted. My research was a qualitative study on Black Barbershops within the surrounding local community. As with most sociological research, there is a multitude of expenses that are associated with this process. Such costs include travel expenses, recording equipment, transcribing services, and needed software. I am very grateful and appreciative for

the OUR Summer Research Program's financial assistance in helping me with the completion of my research project. Being a part of this program allowed my research to fully develop while being devoid of the stresses associated with the financial costs of the project. Furthermore, I commend the OUR Summer research program for allowing its participants to expand on our research experience as we embark on our journey to complete our graduate school applications. Once again, I sincerely and genuinely thank the Office of Undergraduate Research and staff members alike for their support, especially during these difficult times of the Covid-19 era.

Student: Christian Rodriguez

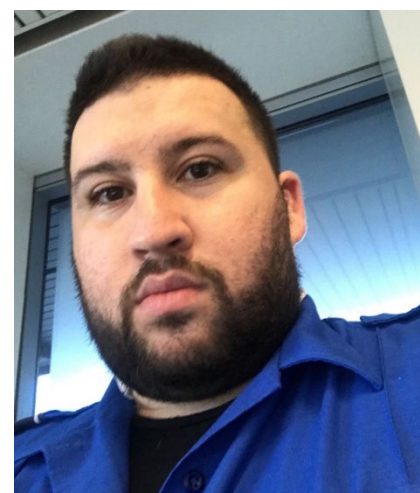
Major: Spanish-Linguistics

Class Level: Senior

Research Project: *Linguistic and Cultural Barriers in Social Work*

Research Mentor: Ivonne Heinze-Balcazar, Department of Modern Languages

This opportunity with the Office of Undergraduate Research program has opened the doors for future opportunities and possibilities where I may grow in both areas of knowledge and professional development. My network has expanded through the OUR program and I have a stronger bond with my mentor. I am grateful for the experience that has come with this program in challenging me to conduct my own investigations, learn the process for IRB approval and acquire the skill set needed to persevere in graduate school. This could not have come at a better time financially. Due to COVID-19, the financial support of this program really helped me continue my studies and allowed me to invest in a new printer. I am thankful of the immense support Tigress has shown all of us and how she has kept all of us on track.



Christian



Omar
SRC first place awardee

Student: Omar Santizo

Major: Biochemistry

Class Level: Senior

Research Project: *Measurement of N-Acetyl Cysteine by Cyclic Voltammetry*

Research Mentor: Barbara Belmont, Department of Chemistry and Biochemistry

I am a fifth year student at Cal State Dominguez Hills majoring in biochemistry with a minor in psychology. In the past two years I have conducted research with Professor Barbara Belmont in analytical chemistry. This summer I was awarded the OUR research program stipend to continue my research in the summer. The stipend helped me in many ways with my research as well as financially. We are living in the middle of a pandemic that has cost the jobs of many people. The

stipend gave me an additional buffer in case I would lose my job. At the end of the summer, I was able to get data from my last reagent and now I am a step closer to finishing my portfolio of cyclic voltammetry experiments. I'm very excited to demonstrate my research at Student Research Day via an oral or poster presentation.