2014 Gone, 2015 Fast Approaching

SCCUR, or Southern California Conference on Undergraduate Research, is held every November at a university in the greater Los Angeles area. 2014 SCCUR was held at California State University, Fullerton. On November 21st, Harvey Mudd College, Claremont will be hosting the event.

In recent years, seven to nine hundred students have participated in SCCUR along with their faculty mentors and guests. They present their work through posters, oral presentations, and creative exhibits and performances. Oxy traditionally has had one of the largest contingents of student-presenters. Participants come from around 80 institutions in Southern California and from around the nation, with some presenters from international institutions. SCCUR started in 1993, and Occidental College hosted it in 1996, and again ten years later in 2006.

Zoe Goozner, Senior, Biology major attended SCCUR 2014 to present her work on endangered Acropora corals on Isla Colon, Panama.

Science Scholars & the Program

Oxy’s Science Scholar Fellowship program is supported by an endowment from the Fletcher Jones Foundation and a grant from the Kenneth T. and Eileen L. Norris Foundation. Science Scholars receive $15,000 over 3 terms and one summer. Eligible students are juniors majoring in Biochemistry, Biology, Chemistry, Environmental Science, Geology, Kinesiology, Neuroscience, Physics or Psychology with supervision from Occidental College faculty in these disciplines. Science Scholars receive study grants of $2,000 the spring of their Junior year, $6,000 the following summer, $4,000 their senior academic year, and finally a $3,000 budget for research expenses and professional travel.

The 2015-2016 scholars include Rishi Bhandia (Physics and Math major) whose research is on the thermal expansion of thermoelectrics, Marshall Trautman (Geology), studying the history of faults in Southern Coast Mountains Batholith, Kristina Chang (Chemistry and Math), researching the elucidating lipid structure on gold nanoparticle surfaces with surface-enhanced Raman spectroscopy, and Travis Wilson (Chemistry) who is studying the fusogenic properties of transplanted, in vivo neural stem cells within the context of seizures.
Summer Research

a space for every field of interest

Occidental’s nationally recognized Summer Research Program included 112 students working with 56 mentors from 25 departments. The ten week program concluded with a final conference in which students presented their research findings. Moreover, with 25 departments involved in SRP 2015, the research was not only lab work, but also included those from the social sciences.

Junior, Oscar Yip is pictured on the right. Oscar spent the summer doing research with Professor Baran in the biology department. Specifically, he was researching at the neural defects using C. elegans as a model organism.

“I felt that it was a good chance for me to explore my interests in doing biology research. I also learned a lot of lab techniques that I wouldn’t have otherwise if I didn’t participate in the program.” Oscar’s overall experience of the summer was “very positive.” He also added that, “the closeknit community over the summer was also a great way to meet new people, and to make friends.”

Although summer is far away, it’s never too soon to think about summer plans. The summer research program fosters a community of learning-by-doing, while offering the experience of Oxy outside of the academic school year.

Undergraduate Research Center

URC Participant takes learned skills to the ice

Donovan Dennis shares his experience with the Juneau Icefield Research Program

This summer I participated in a two-month research expedition across the Juneau Icefield in Alaska and British Columbia. While on the program, I joined a research group that is working to build a stable water isotope profile of the icefield. What are isotopes and why do they matter? Stable water isotopes (primarily 18O and 2H) and more specifically, the changing ratios of these heavy isotopes to their normally-neutroned counterparts provide insight into regional weather patterns. By digging snow pits and taking samples deeper and deeper into the pits, we can learn about the changing climate over time. This technique is used on a much larger scale to build climate reconstructions from ice cores recovered from drill sites on Greenland and Antarctica.

My specific research project investigates the variation in these ratios on a very small scale, about 20-40 cm. We dug a shallow snow pit about two meters in depth and I took samples on a grid with 20 cm between rows and 40 cm between columns. The samples are currently being processed at the University of Alaska Anchorage, and we hope to begin writing up our group results soon. As a research group, we intend to present at the American Geophysical Union Fall Conference in San Francisco this December.

My experience as a summer research student with the URC and Dr. Chris Craney gave me the background skills necessary to develop a large research project. I was confident in my knowledge of the entire process—from developing a testable hypothesis to collecting data—and now as we write up our results, I can take a leadership role within our group, having written two reports while an Oxy researcher.
URC Deadlines to Note

October
23 Submit your SCCUR abstract at sccur.hmc.edu/submission if you are interested in presenting at SCCUR this fall.

26 Richter-ASP Application Deadline.
Richter-ASP projects are supposed to be multicultural or international projects. This year you may take your trip either over Winter or Spring break. There is no secondary deadline, so plan ahead!

November
3 Summer Research Program 2016 Drop-In Info Session
11:45-1:15 in the Library, Brown Lab, room 219

6 Second Round of Fall ASP Awards Announced

7 SCCUR Early Bird Registration Deadline
The URC will cover the conference fee for all student presenters and faculty mentors that register by this deadline. The payment code is OXY2015. Do not pay for the fee out of pocket - you will not be reimbursed!

16 Science Scholars Application Deadline

21 SCCUR takes place at Harvey Mudd, Claremont.

Contact us!
Email: urc@oxy.edu Phone: (323)259-1414
Location: Library, 2nd Floor, Old Wing, Room 253A
Website: oxy.edu/undergraduate-research-center

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