Earth Science Summer Research Opportunities at Biosphere 2

“Biosphere 2 Earth Systems Research for Environmental Solutions” (biosphere2.org/education/research-experiences-for-undergraduates) is a 10-week summer Research Experiences for Undergraduates (REU) program that fosters the scientific career development of students coming from groups underrepresented in science, including minority and 1st generation students, and undergraduate students from colleges and universities with limited research opportunities. Students conduct environmental and Earth science research and participate in weekly research-seminar discussions with University of Arizona scientists, professional development activities, such as public speaking and graduate school workshops, and outreach training. Students learn to communicate their research to the thousands of Biosphere 2 (B2) visitors. The summer culminates in a student undergraduate research symposium. Students are also supported to share with the scientific community by presenting at a professional meeting of their choice following the summer experience. Undergraduate students from a wide range of disciplines and interests including biology, ecology, plant sciences, hydrology, soil science, geology, atmospheric science, mathematics, physics, chemistry, or computer science are encouraged to apply. Only U.S. citizens or permanent residents are eligible for this NSF (National Science Foundation) funded program.

Student projects take advantage of the B2 research infrastructure, allowing for a high degree of control at large scales, and the NSF Critical Zone Observatory (CZO) (criticalzone.org/catalina-jemez) and other field sites in the Sonoran desert and sky island mountains around Tucson to improve our understanding of Earth systems. Projects focus on a variety of topics that include (but aren't limited to): coupling ecohydrology and biogeochemistry, investigating abiotic and biotic contributions to ecosystem processes, integrating measurements across scales, using innovative tools to link climate and ecological function, and modeling of ecosystem and soil processes. Students work with several outreach organizations (e.g., Institute of the Environment, Water Resources Research Center, Native Nations Climate Adaptation Program) at the University of Arizona to link their research to addressing local and global environmental challenges.

REU Students receive a competitive stipend, lodging at Biosphere 2's student village, food allowance, and travel to and from Tucson, AZ, as well as support for travel to a professional meeting to present their work. Applications for summer of 2017 (June 5 - Aug 11, 2017) are due March 1st, 2017, and application material can be found at: biosphere2.org/education/reu-application-form