

WORKSHOP: COLLABORATIVE AND INTERDISCIPLINARY REU RESEARCH TO PREPARE STUDENTS FOR SCIENCE-BASED CAREERS

Friday, 11 April 1:30pm-3:00pm

UNM SUB Room: Mirage/Thunderbird

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Modern scientific research addresses complex problems through an interdisciplinary and collaborative approach. However, undergraduates in the sciences are typically taught in lecture and lab courses that emphasize individual effort and a single-discipline focus. This may leave students unprepared for graduate school and future careers in science. In an effort to address this problem, we've established Interdisciplinary Science for the Environment, an NSF-funded Research Experience for Undergraduates (REU) program at New Mexico Tech. This program allows undergraduates to participate in an intensive summer research experience as members of an interdisciplinary and collaborative team. The research projects span a range of topics, but are all motivated by environmentally-related topics or issues. Project teams include two or more faculty members, graduate students, and undergraduate participants, all from different departments and/or academic majors. Program goals include increasing the participant's knowledge and excitement about science and the nature of scientific research as well as exposing the participants to an interdisciplinary and collaborative research environment. Assessment data for the participants indicate that the collaborative and interdisciplinary nature of the program was a key to its success in reaching these goals. All the students discussed the value of incorporating other disciplines in solving problems in their own field, something they hadn't been exposed to as undergraduates. Most students reported that collaboration with other participants and project faculty was very important for their understanding of their project and for its successful completion.