

STEM ADVANCEMENT PROGRAM

NSF HIGHLIGHTS—TRACK 1 EDUCATION & OUTREACH

TITLE

2015 STEM Advancement Program (STEMAP) impacts the lives of undergraduate students

EXPLANATION



STEMAP participant Tim Torres working with the outdoor algae cultivation tanks at NMSU

The Science, Technology, Engineering, and Math Advancement Program (STEMAP) engages students from New Mexico regional universities, community colleges and tribal colleges in the research funded by New Mexico EPSCoR. Each summer, 12 students will take part in a week of workshops at New Mexico Tech on energy topics and scientific research and they will spend nine weeks working with New Mexico EPSCoR-funded faculty and students on cutting edge research that is important to New Mexico. The summer program concludes in a research conference at which the students present their results. Throughout the academic year, NM EPSCoR provides workshops for students in topics such as applying for an NSF Graduate Research Fellowship, developing effective science posters, and using strategies for student success. Eleven undergraduates from seven New Mexico Primarily Undergraduate Institutions (PUIs) reported to New Mexico Tech (NMT) on Sunday, June 2, 2014 to begin their participation in STEMAP. The program ended on July 30, 2015 with student presentations to 50+ researchers, faculty, NM EPSCoR staff, friends, and family at the Sevilleta National Wildlife Refuge.

OUTCOME

Three STEMAP students, Tim Torres, Aysha McClory and Saul Ruiz, were invited to present posters based on their STEMAP research at the 2014 Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Conference. Because of their experience in STEMAP, several participants are now pursuing STEM degrees, and some have transferred to research universities.

Half of the 11 participants also provided video testimonials about the program. These testimonials, and two from the SACNAS conference, can be seen on the New Mexico EPSCoR YouTube channel (http://bit.ly/STEMAP2014_playlist). The testimonials also made it possible to create a recruitment video with real impact for potential STEMAP 2015 applicants.

IMPACT/BENEFITS



STEMAP 2014 participant Shana Willie (Western New Mexico University) presents her work with the NM EPSCoR Uranium Transport & Site Remediation team to colleagues, friends, and family at the Sevilleta National Wildlife Refuge.

STEMAP gives undergraduates from non-research universities the opportunity to work in the labs of NM EPSCoR researchers. The nine-week commitment involves a week of training at NMT and eight weeks of research followed by a final conference at which the students present their research and talk about their experiences. Often, this is the first formal research presentation of their academic careers. In return, the students receive a stipend, housing and food allowance, and 3 hours of independent study credit from NMT. Students at New Mexico non-research universities are often from underrepresented groups, and STEMAP provides an opportunity that these students may not otherwise have access to.