

Sustaining an Undergraduate Research Program that Serves as a Bridge Between 2YC and 4YC

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For the past ~4 years the University of Texas at El Paso (UTEP) has been working with El Paso Community College (EPCC) to help ease the transition of underrepresented students in geoscience and environmental science between our institutions. One of most successful activities has been the establishment of cross-institutional research projects with EPCC students. Support for the projects originally came from WAESO (Western Alliance to Expand Student Opportunities) and later an NSF OEDG grant to EPCC, but continuation of the research program requires it to become self-sustaining. In the past year we have focused on a variety of research projects that can be conducted in agricultural fields located with ~300 m of the Mission del Valle campus of EPCC. The projects primarily focus on geochemistry, geophysics and sedimentology and how these factors affect agricultural crop yields. This has decreased or eliminated transportation costs for EPCC students to work on projects. Many UTEP undergraduates participating in the program also live a short drive from this field site. We have found that although the small stipends (~\$1000/semester) we were originally able to pay EPCC participants were appreciated, they considered the opportunity to work on research valuable even if we were unable to pay them. Several of the UTEP students who helped mentor and direct EPCC students in the field this year have been able to find support through competitive research grant programs administered by the UTEP's Provost's Office and UTEP's Campus Office for Undergraduate Research Initiatives. EPCC students are initially introduced to the field area in introductory geology courses and short field trips are made to the site. As research work continues at the site we plan to involve other UTEP faculty with specialties in geochemistry, sensor design, remote sensing and ecology. In fall 2013 ten EPCC students (the majority from underrepresented groups) transferred to UTEP's BS programs in geology or environmental science. Most transferred as a direct result of the mentoring and research opportunities they received while still at EPCC, and all are returning to UTEP for the spring 2014 semester.