Circle of Learning for Entering Students: University of Texas at El Paso

The University of Texas at El Paso (UTEP) serves a large, binational, bicultural population located on the U.S.-Mexico border. The student population reflects the demographics of the region from which UTEP draws 90 percent of its more than 17,000 students: 69 percent Hispanic, 14 percent African American, 1.3 percent Asian, 0.3 percent Native American, and 13 percent international. UTEP ranks second in the nation in awarding bachelor's degrees to Hispanics and is in the top ten in bachelor's degrees awarded to Hispanics in business, engineering, and health sciences.

At UTEP, many students are first-generation and considered "at risk" in higher education. The Circle of Learning for Entering Students (CircLES) program was piloted in 1997 as a student support component of the Model Institutions for Excellence (MIE) initiative, funded by the National Science Foundation. UTEP was one of six institutions selected to develop new models in undergraduate education to increase minorities' involvement in the fields of science, technology, engineering, and mathematics. Designed for twenty-five entering science and engineering students, CircLES includes a mandatory weeklong summer orientation, personalized advising and mentoring, and a learning communities' cluster (a mathematics course, an English course, a Seminar in Critical Inquiry, and a discipline-specific course). After the first pilot of sixty students, the program was scaled up to include all first-time, full-time students.

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The first CircLES pilot served pre-calculus students, but the program soon expanded to include developmental students. Before or on the first day of the summer orientation, students take math and English placement tests. During the week, students attend a six-hour math review taught by junior and senior students and then work in small groups of three to four students to brush up on math skills. At the end of the week, they take the math placement test again. Forty percent place in a higher level of math, pre-calculus or Calculus I, saving them one semester; these students consistently do as well as regularly admitted students.

In the fall of 2002, 409 of the 488 students from the summer orientation were placed in CircLES clusters. Students not placed either needed to take ESL classes or they could not attend school full time. Eighteen learning communities were offered: three calculus clusters, eight pre-calculus clusters, five intermediate algebra clusters, and two introductory algebra clusters—that is, among UTEP's pre-science and pre-engineering students, 38 percent are developmental mathematics students. In English, two of the four courses in the sequence are also developmental, noncredit courses.

Counselors and UTEP science and engineering graduates are integral to CircLES' success. They provide academic advising, career planning, and mentoring. UTEP also hires twenty-five undergraduate science and engineering majors to be peer mentors each year. Attached to CircLES' clusters through the Critical Inquiry seminar, a three-credit hour seminar taught by science and engineering professors and staff, the peer mentors participate in a weekly training and leadership program where they are introduced to cooperative teaching and learning strategies. Each seminar focuses on five UTEP freshmen learning goals including problem solving.

Before implementing CircLES, the first-year retention rate for science, technology, engineering, and mathematics students was a little under 70 percent; since CircLES, the retention rate is a consistent 80 percent. Disaggregated data for developmental students indicates that they have gained most from the program.

Website: http://univstudies.utep.edu
Contact: Cathy Willermet, cwillermet@utep.edu