

## **UTSA Emporium Math Core Curriculum Redesign and Scale-up: STEM and Business**

Insufficient college-level math readiness coupled with inadequate math pedagogy pose debilitating barriers to student success in math core curriculum courses. The consequences for the University of Texas at San Antonio students, who are predominantly Latina/o, first-generation, and low-income are that a majority of pre-STEM and pre-Business majors don't persist in the STEM and Business fields, and many others are not retained through to graduation.

As a result, UTSA seeks to adopt a proven Emporium Model course redesign for STEM and Business core math courses. The Emporium Model, designed using the National Center for Academic Transformation (NCAT) guidelines, provides math instruction delivery in which students participate in active math learning via a supportive, student-centered, engaged-learning lab environment. With only one lecture averaged per week, instructors spend all other student-contact hours in the student-centered lab with Emporium enrolled students and student tutors. This facilitates and increases the number of outside lecture class time hours that instructors are engaged and actively supporting students. The Emporium lab is an incubator for fostering a sense of belonging and engagement among students and faculty. The Emporium's high-impact, student-centered and high-faculty and tutor engagement will significantly increase the probability of student persistence, retention, and graduation.

Redesigning our pre-STEM and pre-Business math core to support student success will be groundbreaking on the UTSA campus and support the institution's predominate Latina/or, first-generation, and low-income students. Scaling up the current Emporium Math model delivery for STEM and Business core math courses is a single high-impact investment that can move UTSA toward accomplishing the goal of graduation more students in STEM and Business. Key indicators of success will include the number of graduating majors in the College of Business, College of Science, and College of Engineering, as well as the number of graduates who are identified as underrepresented minorities, first-generation college students, and low-income. The ultimate indicator of success will be increased retention and graduation rates.