

Texas State Technical College in Harlingen
Quality Enhancement Plan (QEP)
Math: It All Adds Up To Success



Executive Summary

The Focus: Texas State Technical College (TSTC) in Harlingen’s Quality Enhancement Plan (QEP), entitled *Math: It All Adds Up To Success*, strives to enhance student learning and success in developmental mathematics through programming that combines proven curricula and learning strategies with innovative enrichment activities to help TSTC in Harlingen students succeed in developmental mathematics. Upon review of data collected between 2009 and 2012 which included broad-based discussions, focus-groups, surveys, and research on national and statewide trends, the college’s QEP Topic Selection Committee recommended that the focus of [TSTC in Harlingen’s QEP](#) be on Developmental Mathematics. Further investigation which was supported by institutional and empirical data showed low success rates for students in developmental mathematics compared to peers in developmental reading and writing with roughly 30% of first-time-in-college (FTIC) students being placed in Developmental Mathematics.

The Goals and Outcome Objectives: *Math: It All Adds Up To Success* is guided by one overarching goal: To improve student learning and success in developmental mathematics. To meet this goal, six outcome objectives guide the evaluation of the project’s success:

- 1) At least 70% of developmental math (DMTH) 0200 capstone students will complete the course with a grade of “C” or better or achieve a passing score on the TSI approved test each term.
- 2) The percentage of FTIC students placed in developmental math (DMTH) each term who successfully complete the DMTH 0200 capstone course or its TSI equivalent within two-years of initial enrollment will increase by 2% each year for a summative increase of 10% by the 5th year.
- 3) The percentage of students who enroll in and successfully complete the Emporium (DMTH 0100 and DMTH 0200) and/or MAMBO (DMTH 0200 and MATH 1314) will increase by 2% for each course per year for a summative increase of 10% for each course by the 5th year.
- 4) At least 70% of DMTH 0200 students will score an 80% or better on items within the course exams related to each learning competency each term.
- 5) Students in DMTH 0100 will express a decrease in anxiety from pre-to-post test on a Math Anxiety Survey each term.
- 6) At least 70% of DMTH 0300 and MAMBO students will score an 80% or better on items within the course exams related to each learning competency each term.

The Initiatives: The QEP, *Math: It All Adds Up To Success* initiatives are designed to address the need for transformed developmental math education. The multiple initiatives support three primary strategy areas: **Curriculum and Instruction, Academic Support and Student Support Services, and Advising.** The plan features a transformed course design with a focus on smaller class sizes and a restructured course schedule to a block system creating more concentrated and flexible units of time for each class. This new system will be implemented by mandatory student advisement with course instructors and reserved time with Supplemental Instruction (SI) Tutors for cooperative learning, instruction in developmental math-specific content, lab time where students can use educational software to reinforce concepts, and specialized tutoring services. This new environment will allow more opportunities for a variety of teaching techniques, as well as more time for interaction—between students and between student and teacher. The redesign process retains its focus on student learning needs and best practices in developmental education.

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