A Formula for Success in College Mathematics"

Abraham Baldwin Agricultural College

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The focus of the QEP for Abraham Baldwin Agricultural College (ABAC) is improving student success in math. Like many other schools nationwide, the faculty and staff of ABAC have recognized a rise in under-prepared students and a decline in the pass rates for math, creating a barrier to student progression and graduation.

The ABAC math department and QEP Team identified College Algebra and two learning support courses designed to prepare students for College Algebra as the focus of the QEP. The overall goal of the project is to improve student success in targeted mathematics courses. Three components of the project designed to achieve this goal are faculty development, peer tutoring/supplemental instruction, and placement/advisement. The following objectives are intended to support the overall goal.

Objective 1: Improve the effectiveness of mathematics assessment, placement, instruction and support by developing, implementing and assessing strategies to improve success, course retention and graduation rates in targeted high-risk math courses and for Learning Support students.

Objective 2: Improve instructional effectiveness through the design and implementation of a rigorous program of professional development that utilizes learning and teaching communities to build pedagogical skills in learning styles, assessment methodologies and related alternative instructional techniques for high-risk students and courses.

Objective 3: Develop and implement improved academic support services and strategies for targeted high risk math courses and students through the Academic Assistance Center (AAC) that increase student engagement in tutoring and skill labs.

Objective 4: Show student improvement in mathematics knowledge, skills, and competencies based on an end-of-course assessment in targeted courses using a common course examination.

The first year of the project focuses on best practices in mathematics teaching and on the instruction of learning support students. The first learning support course will be redesigned with a weekly hour of supplemental instruction included to strengthen math confidence and skills. Addressing both the instructor and student perspectives, the second year will focus on teaching and learning styles. The third through fifth years will include such topics as: creating a learner-centered environment, improving self efficacy and determining its affect on learning, and teaching success skills for students to use in and out of the classroom. Faculty development and supplemental instruction will be included throughout all five years.