

Product Used **MyMathLab**

Course Names **Pre-Algebra and Basic Algebra**

Somerset Community College used MyMathlab in its Developmental Math course redesign as part of the Changing the Equation (CTE) National Center for Academic Transformation/Gates Foundation grant. All CTE participants implemented the Emporium Model at their two-year institutions. [This white paper](#) documents the best practices drawn from these CTE schools.

Course Implementation

Somerset Community College redesigned Pre-Algebra and Basic Algebra. These courses, previously taught in lecture format, were prerequisites for credit-bearing math. Pass rates in the traditional format were dismal: 56% in fall 2010 for Pre-Algebra and 55% for Basic Algebra. SCC had tried a variety of strategies to raise success rates with limited improvement.

SCC's redesign involved a modularized curriculum that followed the approved Kentucky Community and Technical College System curriculum. Two class periods (2.5 lab hours) were required per week. Students completed a MyMathLab

pretest on each module. Students who complete the pretest with a score of 90% or higher were assigned a grade for the module and moved on to the next module. Students who scored below 90% were required to work the homework assignments until they reached a mastery level of 80%.

The lecture-free redesign reduced inactive listening time in the classroom and increased the time students actively engaged in learning. Redesign also gave students an opportunity to progress more quickly through developmental courses, thus reducing the time it took to complete their education.

Results and Data

Student performance improved significantly on common comprehensive final exams in both Prealgebra and Basic Algebra (table 1). SCC analyzed fall 2011 course grades by considering Making Progress (MP) grades. Students receiving an MP grade must have completed at least three of six modules with 80% or better mastery and will pick up where they left off in a subsequent semester. In the traditional course, an MP grade meant failure and required the student to retake the entire course. When taking into account the MP grades, completion rates significantly improved in the redesign (table 2).

Other Impacts on Students

- The percentage of developmental math students successfully completing college-level Applied Mathematics increased from 56% before redesign to 67% after it. The percentage successfully completing college-level Intermediate Algebra increased from 37% to 43% after it.

- In fall 2011, 43 students completed both courses in one semester.

Course	Fall 2010 Traditional	Fall 2011 Redesign
Prealgebra	74.52	86.91
Basic Algebra	72.32	81.53

Table 1. Average Common Final Exam Scores before and after Redesign, Fall 2010 and Fall 2011

Course	Fall 2010 Traditional A, B, C	Fall 2011 Redesign A, B, C + MP
Prealgebra	57%	81%
Basic Algebra	55%	75%

Table 2. Average Completion Rates before and after Redesign with MP Grades, Fall 2010 and Fall 2011

Conclusions

SCC is pleased with results of its redesign, which is strongly supported by the college administration. Initial investment by the college provided new large labs on the main campus. A case now can be made to expand labs at all centers and sites. KCTCS system curriculum changes effective fall 2012 will allow expansion of redesign to Intermediate Algebra.

Redesigning and modularizing Intermediate Algebra will provide an additional course in the sequence for multiple course completion and additional cost savings. Agreements have been made to facilitate entry into credit-bearing Applied Mathematics as soon as students complete Basic Algebra.