

Product Used **MyMathLab**
 Course Names **Developmental Math Sequence**

Cochise 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

A former departmental review at Cochise showed that, of the 5,782 students enrolled in developmental math courses between 2007 and 2010, nearly 43 percent received a D, F, or W. Almost 25 percent of the students never completed the developmental math sequence, a rate that had not changed significantly since 2004. Redesign was needed to improve the success rate of developmental math students.

The developmental math program was redesigned into three courses. Fifteen modules—each corresponding to a desired learning outcome—were distributed evenly across the courses. Students were able to move at their own pace through the courses and were given three semesters to complete them successfully.

The redesign significantly enhanced the quality of the students' experiences. They had an interactive, modularized experience where feedback and assistance were available immediately (via software) and on-demand (via instructors and tutors). Time and attention were directed only where the student needed it, with extra instruction and practice in areas of difficulty and the ability to move rapidly through areas of demonstrated mastery. Students had multiple ways to reinforce their learning: online tutorials and practice, individualized instruction, and collaborative learning. MyMathLab's immediate feedback kept both students and instructors informed on student progress.

Results and Data

Cochise faculty analyzed fall 2011 course grades by considering Making Progress (MP) grades. Students receiving an MP grade must have completed at least 60 percent of the modules with 80 percent or better mastery. When taking into account MP grades, completion rates were higher in the redesign. In the case of the first two courses, those differences were statistically significant (table 1).

Other Impacts on Students

- 93 students completed two or more developmental math courses in one semester, and 30 students completed all three levels in one semester.

- Student surveys showed about 95 percent of students would recommend the new course to others.

Course	Fall 2004–09 Traditional A,B,C	Spring 2005–10 Traditional A,B,C	Fall 2011 Redesign A,B,C + MP
Fundamentals of Math	57%	58%	64%
Elementary Algebra	54%	53%	71%
Intermediate Algebra	54%	51%	59%

Table 1. Completion Rates before and after Redesign, Fall 2004–2012

Conclusions

Cochise faculty believe in the redesign and are committed to continuing the new format. Plans include continuing improvements to lab facilities and training for instructors and tutors. Many college-level classes, especially online courses, are now using MyMathLab and parts of the redesign concept.

A 50-station lab was constructed on the Sierra Vista campus at the beginning of fall 2011. A similar lab is now under construction on the Douglas campus. Plans are also being made to construct a lab in the new facilities on Ft. Huachuca.