

Product Used **MyMathLabPlus**
 Course Names **Elementary Algebra, Intermediate Algebra, College Algebra, Finite Math**
 Credit Hours **Three**



KEY TAKE-AWAY

By redesigning its math program into modular units, each emphasizing mastery learning and requiring MyMathLabPlus for homework and assessments, CSCC has significantly increased its completion and pass rates and positively impacted subsequent success.

Textbooks in Use

Elementary and Intermediate Algebra, 4e, Marvin L. Bittinger; *Essentials of College Algebra*, 3e, Gary Rockswold

Course Implementation

Course Design

Prior to the redesign, MyMathLab was optional: some instructors required it, some left it optional, and others didn't use it at all. In spring 2008, the Elementary Algebra and Intermediate Algebra courses employed the redesigned MyMathLabPlus model. In fall 2008, six college-level courses were added, and today all developmental and college-level math courses use MyMathLabPlus to complete homework and take assessments.

Each course consists of 10–12 minimodules. Each module contains at least one homework set, a quiz, a midterm, and a final exam. Students are encouraged to complete at least one module per week.

All classes take place in the math lab, which is staffed by both instructors and lab tutors. There are no live lectures. Each week, students attend proctored, one-hour classes, plus at least one additional hour in the math lab. Students may complete homework during class time or at home. All testing is password protected and completed on campus, in either the lab or a classroom.

Assessments

Faculty at Cleveland State Community College (CSCC) customizes MyMathLabPlus with their own videos, and they hand select homework problems. Students must score at least 70 percent before advancing to the next module.

10 percent	Participation
30 percent	Homework
50 percent	Quizzes
5 percent	Midterm exam
5 percent	Final exam

Use of MyMathLabPlus

MyMathLabPlus is used for homework, quizzes, and tests. The program's View an Example and Help Me Solve This features are enabled during homework assignments. Pre-requisites promote mastery learning and keep students on track by ensuring that they don't work too far ahead.

Use of MyMathLabPlus contributes 100 percent to a student's final course grade.

Results and Data

The primary goals of the redesign were to increase success rates, better prepare students for college-level courses, and increase the ability of students to move quickly through the developmental math program. Data from a fall 2009 department report indicate that the redesign is a success.

Figures 1–4 show significant increases in completion and pass rates after redesign with MyMathLabPlus in Elementary Algebra, Intermediate Algebra, College Algebra, and Finite Math. Both Elementary and Intermediate Algebra experienced completion rate increases of approximately 27 percent over

the traditional lecture courses. College Algebra completion rates increased by 17 percent; Finite Math completion rates increased by nearly 11 percent.

In addition, the report indicates that students who took developmental math courses before advancing in the math sequence outperformed those students who placed directly into College Algebra, Statistics, or Finite Math. Completion rates, passing rates, and even the course grade point averages in these courses experienced increases.

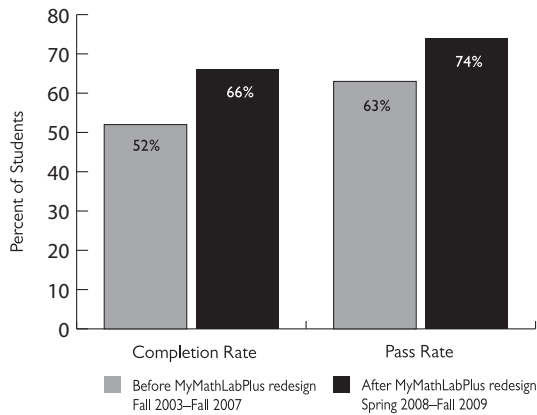


Figure 1. Elementary Algebra Completion and Pass Rates before and after MyMathLabPlus Redesign ($n=1,101$)

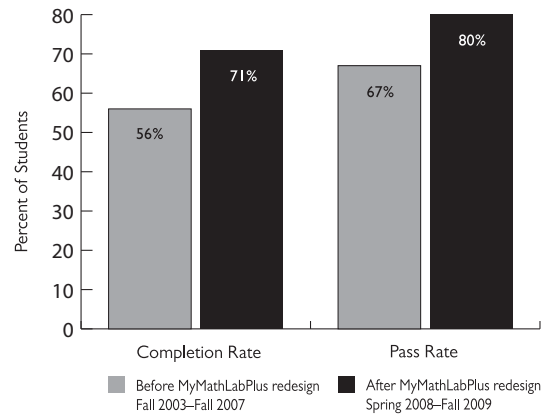


Figure 2. Intermediate Algebra Completion and Pass Rates before and after MyMathLabPlus Redesign ($n=1,332$)

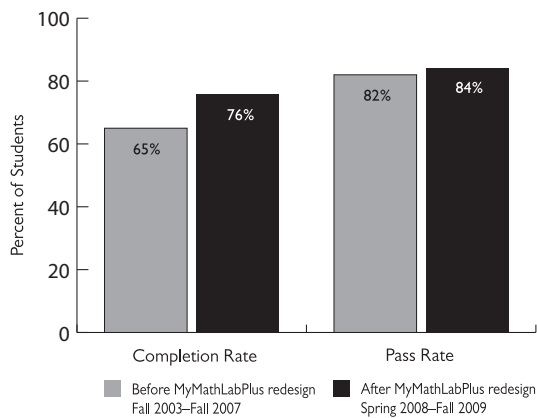


Figure 3. College Algebra Completion and Pass Rates before and after MyMathLabPlus Redesign ($n=820$)

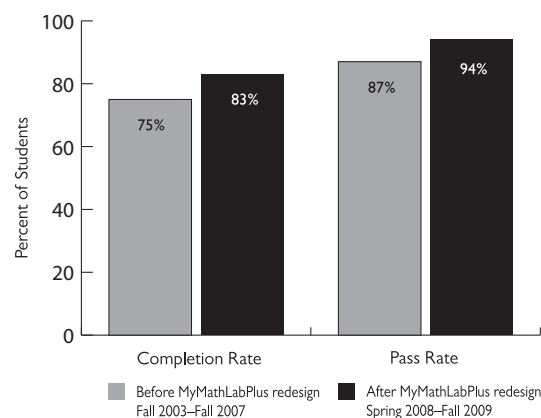


Figure 4. Finite Math Completion and Pass Rates before and after MyMathLabPlus Redesign ($n=71$)

The Student Experience

Student survey comments reflect CSCC students' positive attitude toward MyMathLabPlus.

- “MyMathLabPlus is an easy way to learn and better for quicker students like myself.”
- “MyMathLabPlus explained things much better than other online math classes I've taken.”

- “MyMathLabPlus is flexible enough for students who have busy lives outside of school. It's also great for students who progress faster than others.”
- “I am very grateful for MyMathLabPlus. I learned at my own pace and had help when and where I needed it. I plan to take more math classes.”

Conclusions

The data are incontrovertible: more students are completing and passing both developmental and college-level math courses since the MyMathLabPlus redesign was launched. More than simply figures on a page, the numbers reflect an increase in student learning and student success—and an increased likelihood of graduating from college.

From an institutional standpoint, the redesign is a win-win deal for everyone. Not only are students achieving more, but also the redesign format has resulted in a 20 percent decrease in instructor costs.

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