

Product Used **MyMathLab**
 Course Names **Elementary Algebra, Intermediate Algebra**
 Credit Hours **Four**



KEY TAKE-AWAY

MyMathLab enables nontraditional students to engage directly with math content. UCC students' access interactive resources that promote more practice and thereby increase their confidence in their ability to do math.

Textbook in Use

Introduction and Intermediate Algebra, 3e, Robert F. Blitzer

Course Implementation

Course Design

Both Elementary Algebra and Intermediate Algebra are online courses.

20 percent

Quizzes

Students take two quizzes a semester. They may take each quiz twice.

Assessments

10 percent

Off-line projects

Students complete an average of three assignments per semester using MS Excel.

5 percent

Practice midterm and final

20 percent

Proctored midterm

20 percent

Proctored final

20 percent

Homework

5 percent

Prequizzes

Students are allowed unlimited attempts at practice questions before quizzes.

Use of MyMathLab

Homework, quizzes, and exams are completed in MyMathLab. Students are encouraged to access the eText and use the Study Plan.

Use of MyMathLab contributes 90 percent to a student's final course grade.

Results and Data

Learning Outcome	Departmental Average	Taught by Hughes with MyMathLab
Use of operations to simplify an algebraic expression	84%	100%
Solve a linear equation	84%	78%
Solve a linear equation with fractions	76%	100%
Solve a literal equation for a given variable	80%	61%
Set up and solve a percent problem	75%	78%
Add polynomials	71%	78%
Simplify an expression with integer exponents	76%	72%
Multiply monomials	82%	83%
Multiply polynomials	66%	44%
Multiply two binomials	49%	39%

Table 1. Comparison of Learning Outcome Achievement in Elementary Algebra during Fall 2008 with and without MyMathLab as Indicated by Final Exam Questions

Learning Outcome	Departmental Average	Taught by Hughes with MyMathLab
Simplify a rational expression	72%	86%
Simplify a rational expression by using factoring trinomials	62%	86%
Multiply rational expressions	86%	86%
Add rational expressions	77%	86%
Solve a rational equation	74%	86%
Simplify using rational exponents	80%	93%
Simplify a radical expression	88%	71%
Solve a radical equation	71%	100%
Determine the vertex of a parabola	50%	57%
Determine the x-intercepts of a parabola	50%	71%

Table 2. Comparison of Learning Outcome Achievement in Intermediate Algebra during Fall 2008 with and without MyMathLab as Indicated by Final Exam Questions

Willy Hughes, adjunct, was the only instructor in the Umpqua Community College math department using MyMathLab when the above data was collected. A comparison of learning outcome achievement between Hughes's students and the rest of the department at that time indicates a significant

learning difference. In 70 percent of the outcomes measured, more MyMathLab-enabled students achieved mastery of the outcome than did students who did not use the program.

The Student Experience

MyMathLab's easy-to-use interface and accessible features enable students at all levels of experience to quickly grasp the program itself and advance confidently through its pedagogical content. The program's breadth of multimedia resources means students may select the tools most appropriate to their individual learning styles.

Students in Hughes's elementary and intermediate algebra classes appreciate the extra help MyMathLab provides.

- "I've been out of school for 40 years. I didn't expect to understand the course material, let alone enjoy it. But MyMathLab was easy to follow and easy to use. I read the book and work through the problems until I have a clear understanding of them. Then I do the online homework. I especially like the Study Plan feature, as it helps keep everything in perspective and keep me on task."

- "MyMathLab made it very easy to understand how to work the problems. I got plenty of practice from the Study Plan, and the practice tests showed me where my weaknesses were. Since I learn better by doing rather than listening or watching, this alone improved my understanding of math more than any other class could have done."
- "I think MyMathLab is great. It's like having a math tutor 24-7, right here on my computer, whenever I need one. I have a better understanding of the material now after doing just 20 problems than I did after doing 100 in other classes. I also really like the convenience of doing homework whenever I want to and submitting it as soon as I'm done with just the click of a button."

Conclusions

Hughes knows MyMathLab works—and so do his students. The program motivates them to persevere, reinforces their belief in their abilities, and promotes increased learning.

Based on positive student feedback about MyMathLab's multimedia features, Hughes's plans for the future include

customizing the program by means of self-produced instructional videos.

*Submitted by Willy Hughes, Adjunct
Umpqua Community College*