

# Boise State University

**Course Names** Elementary Algebra, Intermediate Algebra

**Credit Hours** Zero, Four

**Semesters Covered** Fall 2007–Fall 2008

**Types of Data Reported** Homework, Quiz, Exam Averages, Success Rates

**Type of Implementation** Hybrid



## Textbook in Use with MyMathLab

*Beginning and Intermediate Algebra*, 4e, 2008, Lial, Hornsby, McGinnis

## MyMathLab Course Structure

### Course Design

Classes meet with an instructor for one hour per week. Students use MyMathLab for main content delivery, assigned homework, and weekly quizzes, as well as 80 percent of each unit exam. Some instructors also assign paper-and-pencil homework for the one-hour meeting each week. There are two, live campus lecture forums that are optional.

Students have access to the Math Learning Center approximately 80 hours per week. At the Math Learning Center, there are 70 computers and three or four instructors and/or teaching assistants.

### Assessments

15 percent Weekly homework and quizzes  
*Completed via MyMathLab*

60 percent Unit exams  
*Three in Elementary Algebra, four in Intermediate Algebra. Given during the weekly class meeting in two ways: 20 percent paper and pencil, 80 percent via MyMathLab. Students may retake the MyMathLab portion of a test up to three days after the scheduled exam.*

20 percent Final exam  
*Paper-and-pencil exams*

5 percent Participation and attendance

### MyMathLab Implementation

In 2002 Boise State University developed a hybrid-format elementary algebra program in which students received instruction in two ways: one day a week with their instructor and the rest through MyMathLab. All students in all sections did all of their weekly homework assignments via MyMathLab. In 2003 BSU added Intermediate Algebra to its hybrid program. Quiz formats were left up to the individual instructors, and tests were paper and pencil. In fall 2004 BSU added quizzes to those items completed via MyMathLab. In fall 2006 BSU started offering late tests online—for those students who missed their scheduled class test. In fall 2007 BSU began using online testing in every section for all students. Today, use of MyMathLab contributes 63 percent to each student’s final course grade. Grades are not imported into the MyMathLab Gradebook. Test totals and attendance scores are hand posted; the MyMathLab Gradebook is exported into Microsoft Excel in order to track statistics for each course.

## MyMathLab Course Results

Course Name	Type of Student	Total Number of Students	Homework Average	Quiz Average	Exam Average	Pass Rate (A, B, or C)
Elementary Algebra	All	657	64%	57%	46%	30%
	Took Final	371	82%	76%	67%	53%
Intermediate Algebra	All	824	70%	62%	56%	39%
	Took Final	434	81%	84%	66%	55%

**Table 1. Fall 2007 Results**

*I enjoyed the ability to work at my own pace, as well as having so much extra information available to me. The many different sources available made me feel like this course was designed for success.*

—Student  
Boise State University

Course Name	Type of Student	Total Number of Students	Homework Average	Quiz Average	Exam Average	Pass Rate (A, B, or C)
Elementary Algebra	All	514	70%	66%	56%	47%
	Took Final	361	82%	79%	70%	66%
Intermediate Algebra	All	678	70%	65%	57%	41%
	Took Final	505	80%	77%	67%	54%

**Table 2. Spring 2007 Results**

Course Name	Type of Student	Total Number of Students	Homework Average	Quiz Average	Exam Average	Pass Rate (A, B, or C)
Elementary Algebra	All	576	64%	64%	49%	36%
	Took Final	349	80%	80%	67%	60%
Intermediate Algebra	All	668	70%	70%	53%	39%
	Took Final	434	84%	84%	66%	55%

**Table 3. Fall 2008 Results**

## Conclusions

MyMathLab has been successful in handling the two biggest issues BSU faced in 2002: physical space for classes above the developmental level and curricular control of the Elementary Algebra and Intermediate Algebra classes.

Previous to the redesign of Elementary Algebra and Intermediate Algebra into hybrid formats, those same sections of the courses monopolized 49 classrooms for three or four days a week. BSU now uses one classroom in the Math building and a 3,000-square-foot building housing the 70 computers that compose the Math Learning Center.

In addition, all students now receive the same homework, the same quizzes, and the same tests—no matter what time of day they meet and no matter which instructor they have. This standardization of the curriculum enables BSU to accurately track assessments throughout the department.

BSU drop/withdraw/fail (DWF) rates have remained fairly constant: they are about the same as they were when classes were delivered in the traditional classroom: 45 to 55 percent. However, data indicates that students are persisting with the material longer and take one repeat to pass the course. Withdrawal rates themselves are lower, and drops occur occur much later in the course.

In light of the benefits that BSU has seen during the past five years—including a steady increase in pass rates—BSU plans a substantial next step for fall 2008: required mathematics laboratory attendance. Elementary Algebra courses will have two required lab hours; Intermediate Algebra courses will have three required lab hours.

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