

**POINT LOMA NAZARENE UNIVERSITY**  
**MATHEMATICS 099**  
**ELEMENTARY ALGEBRA**

TERM: FALL 2012  
INSTR.: Coach BLAMEY  
EMAIL: TOMBLAMEY@POINTLOMA.EDU

**CLASS HOURS:** MWF 1:30-2:20PM (RS 236)  
**OFFICE HOURS:** F 2:20PM (RS 236) or by Apt.  
**TEXTBOOK:** Prealgebra, by Martin-Gay 6th Ed.

**COURSE DISCRPTION AND LEARNING OUTCOMES:** This course constitutes an introduction to algebra designed to meet the requirements for graduation and to prepare you for other classes for which this class is a prerequisite. We will study the real number system, solutions of linear and quadratic equations, polynomials, factoring, graphing, inequalities, and radicals.

Mathematics is learned primarily by doing mathematics- not simply listening to it; that is, the effective learning of mathematics is an active process, involving participation. Thus, the course aims to maximize student involvement, hence student achievement. Individual concepts in mathematics are learned (mastered as opposed to memorize) by thinking and working through numerous examples and exercises which involve these concepts; by this process mathematical concepts become familiar and less abstract.

**Course Objectives:**

1. Student will analyze the number line, learn the basic properties of integers, and apply the four basic operations to positive and negative numbers, and zero.
2. Student will calculate absolute value as part of their number line experience.
3. Student will evaluate simple algebraic expressions including the use of order of operations.
4. Student will solve first degree linear equations.
5. Student will demonstrate their mathematical problem solving skills and strategy by performing the indicated calculations and comparing these with the estimate, making changes if necessary.
6. Student will identify, describe, and simplify ratios and rates.
7. Student will set-up a proportion to solve application problems.
8. Student will perform computation problems using fractions (both common and decimal) employing the four basic operations.
9. Student will plot ordered pairs on the rectangular coordinate system, and graph simple linear equations in two variables.
10. Student will identify the geometric formula needed to compute the perimeter, circumference, area, and volume for geometric figures.
11. Student will perform conversions within the English system of measurement, and conversions within the metric system.
12. Student will evaluate expressions that contain exponents.
13. Student will simplify algebraic expressions that contain integer exponents using the laws of exponents.
14. Student will perform operations (add, subtract, multiply) on polynomials.
15. Student will convert between standard form of a number and scientific notation.

**Student Learning Outcomes:**

Upon successful completion of Math 35, the student should be able to:

- 1) Evaluate and perform order of operations on arithmetic and algebraic expressions that include signed numbers, fractions, mixed numbers, or decimals without a calculator.
- 2) Convert between percents, decimals and fractions, and solve percentage problems using proportions and/or percent equation without a calculator.
- 3) Solve geometric problems involving angles, perimeter, circumference, area and volume without a calculator.
- 4) Solve linear equations that contain integers, fractions or decimals, and solve application problems by first identifying the unknown, setting-up the equation, solving the equation, and then checking the solution all without a calculator.
- 5) Apply exponent rules to simplify exponential expressions and evaluate and perform algebraic operations on polynomials without a calculator.

**GRADES: 1,000 Point Total.**

|    |                |   |                |    |              |
|----|----------------|---|----------------|----|--------------|
| B+ | 87.5% to 89.9% | A | 92.5% or Above | A- | 90% to 92.4% |
| C+ | 77.5% to 79.9% | B | 82.5% to 87.4% | B- | 80% to 82.4% |
| D+ | 67.5% to 69.9% | C | 72.5% to 77.4% | C- | 70% to 72.4% |
|    |                | D | 62.5% to 67.4% | D- | 60% to 62.4% |

*TEAM QUIZZES:* 200 of your grade.

*INDIVIDUAL QUIZZES:* 250 of your grade.

*HOMEWORK:* 50 of your grade.

*MIDTERM:* 250 of your grade.

*FINAL EXAM:* 250 of your grade.

*EXTRA CREDIT:* Up to 5% of total grade via board work participation.

**Academic Accommodations:**

While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.

Students with learning disabilities who may need accommodations should discuss options with the instructor during the first two weeks of class.

General Advice: The key to success in this class is to attend lectures regularly and do your homework. You learn mathematics by doing it yourself. You should expect to spend approximately two hours outside of class for every one hour in class working on homework and going over concepts. When doing homework, please note it is normal to not be able to do every problem correct on the first attempt. Do not be discouraged, instead seek help.

Sources of Help:

1. Me. If you have questions, ask me.
2. FREE TUTORING- Math Learning Center, RS-230 or Bond Academic Center.
3. Other classmates. Form study groups! Work together!

**ATTENDANCE:** After you miss the equivalent of 4 class periods, you will be warned of impending de-enrollment. If you miss the equivalent of 7 class periods, you will be de-enrolled.

**INSTRUCTOR ABSENCES:** If no substitute appears within 20 minutes of starting time, students may sign an attendance sheet and leave (the last student to sign the attendance sheet will bring it to the next class).

**PLNU Fall Semester 2012**  
**Mathematics 99 - Prof. Blamey**  
**Tentative Schedule (Subject to Change)**

| Week Beginning     | Monday               | Tuesday                                   | Wednesday               | Thursday      | Friday            |
|--------------------|----------------------|---|-------------------------|---------------|-------------------|
| August 27, 2012    |                      | <b>Monday Class Observed: Intro Ch. 1</b> | Ch. 1                   |               | Ch. 1             |
| September 3, 2012  | <b>Labor Day</b>     |   | Ch. 2                   |               | Ch. 2             |
| September 10, 2012 | Ch. 3                |   | Ch. 3                   |               | Ch. 3             |
| September 17, 2012 | Ch. 4                |   | Ch. 4                   |               | Ch. 4             |
| September 24, 2012 | Ch. 5                |   | Ch. 5                   |               | Ch. 5             |
| October 1, 2012    | Midterm Review       |   | Midterm Review          |               | <b>Midterm</b>    |
| October 8, 2012    | Ch. 6                |   | Ch. 6                   |               | Ch. 6             |
| October 15, 2012   | Ch. 7                |   | Ch. 7                   |               | <b>Fall Break</b> |
| October 22, 2012   | Ch. 7                | <b>Midterm Grades Submitted</b>           | <b>Project</b>          |               | <b>Project</b>    |
| October 29, 2012   | Ch. 8                |   | Ch. 8                   |               | Ch. 8             |
| November 5, 2012   | Ch. 9                |   | Ch. 9                   |               | Ch. 9             |
| November 12, 2012  | <b>Veteran's Day</b> |   | Ch. 9                   |               | Ch. 10            |
| November 19, 2012  | Ch. 10               |   | <b>Thanksgiving</b>     | <b>Recess</b> | <b>Recess</b>     |
| November 26, 2012  | Ch. 10               |   | Ch. 10                  |               | <b>Project</b>    |
| December 3, 2012   | Final Review         |   | Final Review            |               | Final Review      |
| December 10, 2012  |                      |   | <b>Final Exam 1-3pm</b> |               |                   |