

# **Pre-Algebra**

## Syllabus

### **Overview**

This elective math course will cover the following pre-algebraic concepts:

Number notation, the multiplicative property of zero, operational symbols, inverse operations of multiplication and division, rules for solving equations by adding and subtracting integers, factors and exponents, fractions, graphing on the coordinate plane, slope and intercept, decimals and percents, statistics, scatter plots, the counting principle, definitions of basic geometric terms, circles, area, volume, sine and cosine ratios, and the Pythagorean Theorem.

### **Objectives**

This math class is designed to give the student ample opportunity to grasp basic concepts of Algebra through the completion of the required lessons and tasks set throughout the coursework as well as to demonstrate understanding of these concepts through the individual lessons and their assessments.

### **Individual Lessons**

Note: All of the lessons are within the A+LS software located on each student's workstation. Each lesson comes equipped with three sections: Study (notes and instruction of the lesson material), Practice (a pretest that gives immediate feedback upon student responses), and Test (the formal assessment of lesson material). For information on lesson correlation to AZ state standards, please refer to the following web address (you will need Adobe Acrobat Reader to view this page): <http://www.amered.com/correlations/arizona.pdf>.

This elective math course covers the following lessons:

Number Notation; Expressions and Equations; Properties; Simplifying Expressions; Solving Equations 1; Solving Equations 2; Integers; Equations with Integers 1; Equations with Integers 2; Inequalities; Solving Inequalities 1; Solving Inequalities 2; Factors and Exponents; Rational Numbers; Equations-Inequalities 1; Equations-Inequalities 2; Graphing; Ratio & Proportion; Percent; Problem Solving; Statistics & Graphing; Probability; Algebra with Geometry; Polygons and Circles; Area and Volume; Special Triangles; and a Comprehensive Review.

### **Tests & Measurements**

Scoring is based upon successful completion of all three sections of each individual lesson (Study, Practice, and Test) with a score of at least 80% on the Test and/or the discretion of the classroom teacher. 90% of the final grade is the average of coursework throughout while the remaining 10% is based upon the score on the Comprehensive Review.