COURSE DESCRIPTION
ALGEBRA

Philosophy Statement: Mathematics instruction has four main functions. First, it equips students to function effectively in an ever-changing world by becoming proficient in computational and communication skills. Second, it enables students to understand and apply mathematical concepts in everyday life. Third, it develops higher-order thinking skills necessary to make a contribution in related fields of study, research, and technology. Finally, it clearly illustrates the order and structure of the world God created.

Objectives: Students will learn first-year algebra. They will use concepts learned on real-world applications with discipline and creative problem solving.

Textbook: Algebra: Concepts and Applications (Glencoe)

Materials: 1 Graph Paper (Quad) Composition Notebook

Time Allotment: 60 minutes per day, 5 days per week

Units of Study:
Chapter 1: The Language of Algebra
Chapter 2: Integers
Chapter 3: Addition and Subtraction Equations
Chapter 4: Multiplication and Division Equations
Chapter 5: Proportional Reasoning and Probability
Chapter 6: Functions and Graphs
Chapter 7: Linear Equations
Chapter 8: Powers and Roots
Chapter 9: Polynomials
Chapter 10: Factoring
Chapter 11: Quadratic and Exponential Functions
Chapter 12: Inequalities
Chapter 13: Systems of Equations and Inequalities
Chapter 14: Radical Expressions
Chapter 15: Rational Expressions and Equations

Areas to be Evaluated:
Tests (30%)
Homework (30%)
Classwork (20%)
Quizzes (10%)
Class Participation (10%)

Additional Activities: ACSI Math Olympics, Physics Fun Day, Pi Day