Integrated Algebra - Course Syllabus

Description:
Supporting students' needs for engaging and interactive instruction, this course encourages students to apply previously learned skills to more advanced problems in an effort to gain mastery of algebraic concepts. This course, intended for high school students, covers familiar topics—such as statistical data, ratios, proportions and percentages, spatial thinking, sequences and patterns, and polynomials and functions—in a more comprehensive manner that challenges students in preparation for more complex subjects.

Textbook: Pre-Algebra ISBN-13: 978-1-938168-99-4

Course objectives:
Throughout the course, you will meet the following goals:
- Perform operations with rational numbers and use them to simplify expressions
- Use mathematical and algebraic expressions and equations to represent and solve a variety of mathematical and real-world problems
- Understand the concept of a function and its use in representing relationships
- Exercise proportional thinking and use it to analyze the connection between ratio, proportion, and percent
- Understand geometric concepts and strengthen spatial reasoning
- Develop and use problem-solving strategies
- Use statistics to display, describe, and analyze data
- Understand counting methods, and apply them to calculate probabilities

Contents:

Semester A	Semester B
Chapter 1: The Tools of Algebra	Chapter 8: Functions and Graphing
Chapter 2: Integers	Chapter 9: Real Numbers & Right Triangles
Chapter 3: Equations	Chapter 10: Two-Dimensional Figures
Chapter 4: Factors and Fractions	Chapter 11: Three-Dimensional Figures
Chapter 5: Rational Numbers	Chapter 12: More Statistics and Probability
Chapter 6: Ratio, Proportion and Percent	Chapter 13: Polynomials and Nonlinear Functions
Chapter 7: Equations and Inequalities	

Grading Scale
A = 90-100%
B = 80-89%
C = 70-79%

Grade Weighting
Chapter Quizzes…………. 70%
Cumulative Exam ……….. 30%
                                    100%

D = 60-69%
F = under 59%