General Course Information

Course Name: Pre-Algebra	
Department: Mathematics	Grade Level(s):9-12
Duration/Credits: 1 Year/1.0 Credit	Prerequisites:
BOE Approval Date: 12/19/19	Course Code: H2000
Course Description:	

This course gives the student the opportunity to strengthen skills using the basic operations of addition, subtraction, multiplication, and division of whole numbers, decimals, fractions, and real numbers. Students will build their knowledge of measurement, percent, operations with integers, and graphing. A focus on developing problem-solving skills and number sense to build a foundation for Algebra I.

Course Rationale:

As students transition from middle school to high school math, this course allows for students to strengthen the necessary understanding required for future mathematics courses. This course builds on previous knowledge while introducing Algebraic concepts to bridge the gap between middle school and high school math concepts. Students leaving this course will be better prepared for success in Algebra 1. Through applying and extending previous knowledge and constructing new knowledge, students can build strength in mathematical thinking and self efficacy. Students will experience applications of mathematics that can help them advance professionally after graduation and increase opportunities for careers in mathematics.

Course Objectives:

1. The student will be able to represent mathematical content using numbers, words, and pictures. (Writing A+)
2. The student will be able to communicate mathematical content verbally with peers. (Speaking A+)
3. The student will read and analyze word problems using simple algebraic concepts within real world situations. (Reading A+)
4. The student will strategically choose and efficiently implement procedures to solve mathematical problems while introducing algebraic thinking.
5. The student will apply and extend previous understandings of numbers to add, subtract, multiply, and divide rational numbers and use rational numbers to approximate irrational numbers.
6. The student will utilize a number line to describe relationships between real numbers (<, >, =).
7. The student will fluently solve multi-step problems using order of operations with positive and negative rational numbers in any form (whole numbers, fractions, and decimals).
8. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. (Writing A+)

9. The student will identify and describe the relationship between two variables that change in relationship to one another using a coordinate plane.
10. The Student will represent linear equations (graph, equation, table) and use their understanding of slope to analyze and solve problems.
11. The student will know and apply the properties of integer exponents to evaluate square roots of perfect squares and cube roots of perfect cubes and approximate irrational solutions.

Standards Alignment:

MLS Mathematics 2019
This course is not recognized as core curriculum by the Missouri Coordinating Board for Higher Ed.