

## General Course Information

### Course Name: Math 7 Advanced

Department: Math

Grade Level(s): 7th grade

Duration/Credits: 1 year

Prerequisites: None

BOE Approval Date: December 2022

Course Code:

### Course Description:

Through student discourse, rich math tasks, and real-world application, students will develop mathematical concepts and relate them to other content areas and everyday experiences. The student will be engaged in mathematical activities to learn number operations, proportional reasoning, geometry, statistics, and algebraic thinking, with a focus on developing conceptual understanding of mathematical concepts. The course will align with the Missouri Learning Standards and the eight mathematical practices.

### Course Rationale:

In order to prepare middle school students for future endeavors, students will problem solve and understand mathematically through deep thinking with math tasks and meaningful discourse. Students will use hands-on learning and be able to see math as applicable and relevant to their lives.

### Course Objectives:

- The student will be able to use all four operations to interpret and solve real-world problems involving rational numbers.
- The student will be able to interpret and solve equations and inequalities. In addition, students will analyze the reasonableness of a solution.
- The student will be able to analyze linear and proportional relationships and use them to solve real world problems.
- The student will be able to apply formulas to find the area of two-dimensional figures.
- The student will be able to draw inferences and interpret real world statistics from various data displays.
- The student will be able to use and apply the concepts of slope and linear relationships to represent real-world scenarios and present the ideas in different forms.
- The student will be able to construct linear functions.
- The student will be able to simplify basic expressions with integer exponents.

### Standards Alignment: