**Advanced Mathematics Grade 7 and Algebra I in Middle School**

**Course Descriptions:**

**Advanced Mathematics 7**

**Math 7 Adv 210002**

**Prerequisite:** 6th grade math

Advanced Mathematics 7 provides students with a challenging curriculum that is aligned to the Alabama Course of Study for Mathematics. At the advanced level, students will engage in rigorous study of operations using rational numbers, linear equations and systems of linear equations, random sampling and data distributions, real-world applications of area and circumference of two-dimensional figures, and surface area of three-dimensional figures. Advanced Mathematics 7 is a compacted course, which means that all of the content of Mathematics 7 and more than half the content of Mathematics 8 are compressed into this single course. Therefore, the curriculum moves at an accelerated pace. Opportunities are provided for students to master mathematical content and skills; develop the ability to make sense of problem situations; and build conceptual understanding that serves as the foundation for Algebra I. The primary goals of the course are to foster independent learning, encourage in-depth exploration of the content, and build the skills necessary for Algebra I. Daily homework and some out-of-class projects are required.

**Algebra I in Middle School**

**Algebra I MS 210005ad**

**Prerequisite:** Regular or advanced 7th grade math

Algebra I in Middle School provides 8th grade students with a challenging curriculum that is aligned to the Alabama Course of Study for Mathematics. At the advanced level, students will engage in rigorous study of algebraic and graphical representations of problems; function notation and language; linear, quadratic, and exponential relationships; data regression; and the real number system including both rational and irrational numbers. Algebra I in Middle School is a compacted course, which means that approximately half the content of Mathematics 8 and all of the content of high school Algebra I are compressed into this single course. Therefore, the curriculum moves at an accelerated pace. Opportunities are provided for students to master mathematical content and skills; apply reasoning and problem solving skills to real world situations; and build conceptual understanding that serves as the foundation for all high school mathematics. The primary goals of the course are to foster independent learning, encourage in-depth exploration of the content, and build the skills necessary for all subsequent high school mathematics courses. Daily homework and some out-of-class projects are required.

The middle school student who completes Algebra I in the 8th grade with a passing course average may choose to accept the associated Algebra I credit toward high school graduation. If the student (and his or her parent) chooses to accept this credit, the final grade earned in this course will be used in calculating the student’s cumulative grade point average (GPA) throughout the student’s high school career, and the student will take Geometry in his or her 9th grade year. If the student elects not to accept the Algebra I credit, he or she will take Algebra I again in the 9th grade. The final grade earned in the 9th grade Algebra I course will then be used to compute the cumulative grade point average (GPA) at the high school.