Advanced Mathematics Grade 7 and Algebra I in Middle School

Course Description:

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 210005
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.

Curriculum:

Laying the Foundation Mathematics 7 and 8
Laying the Foundation Algebra I

Required Teacher Preparation:

Laying the Foundation Mathematics 7 and 8 Years 1-3*
Laying the Foundation Algebra I Years 1-3*

*Year 1 training should be completed prior to teaching Advanced Mathematics 7 and Algebra I Middle School. LTF Years 2-3 training should be completed in subsequent years.

Criteria to Recommend Placement:

The intent of advanced courses at the middle school level is to extend the depth, knowledge, analysis and rigor of academic content by challenging students and preparing them for advanced courses in high school. Students in advanced courses must recognize and understand that they will be responsible for extended academic responsibilities and expectations, which may include a more challenging work load as well as skill mastery and problem solving assignments inside and outside of class. In order to be recommended for Advanced Mathematics 7 and Algebra I Middle School, students should meet the criteria below.

***Criteria to Recommend Enrollment in Advanced Mathematics Grade 7**

- ACT Aspire 5th grade score *(These are the most recent scores available.)* **-**
  418 or higher in Mathematics
- 6th Grade Mathematics Class Grade *(First semester grade of current school year)* **-**
  80% or higher

***Students who meet only one of the criterion above, but not both, should be**

- assessed using a third **district approved local screener** for mathematics. Current year results from the most recent administration of the screener are acceptable for use.

  District Approved Local Screeners
  Global Scholar Mathematics
  STAR Mathematics
  iStation Mathematics
  iReady Mathematics
  Compass Mathematics

- Students who are identified as performing on current grade-level or proficient in mathematics on this screener (in addition to meeting one of the above criterion) should be recommended for Advanced Mathematics 7.

***Criteria to Recommend Enrollment in Algebra I in Middle School**

- ACT Aspire 6th grade scores *(These are the most recent scores available.)* **-**
  420 or higher in Mathematics

- 7th Grade Mathematics Class Grade *(First semester grade of current school year)* **-**
  80% or higher

***Students who meet only one of the criterion above, but not both, should be**

- assessed using a third criterion, the Orleans Hanna Algebra Prognosis Test (OHAPT).
- Students earning a raw score of 80 or higher *(out of the possible 98 points)* on the OHAPT (in addition to meeting one of the above criterion) should be recommended for Algebra I in Middle School.
- For OHAPT answer documents and questions related to the OHAPT, please email Lee Havel at lhavel@bcbe.org.

Recommendation Letter for Advanced Mathematics 7/Algebra I in Middle School

Students who are recommended for advanced mathematics classes should be given a copy of the **Recommendation Letter for Advanced Middle School Courses: *Advanced Mathematics 7/Algebra I in Middle School*.** The purpose of this letter is to provide parents and students with information regarding the responsibilities and expectations of advanced courses. The letter should be signed by the student and the parent and should be kept on file at the middle school.

Students who are not recommended for placement:

The recommendation of the school is intended to guide parents and students in the decision regarding participation in Advanced Mathematics 7 or Algebra I in Middle School. However, if a student does not meet the criteria and is not recommended for Advanced Mathematics 7 or Algebra I in Middle School, the parent may elect to enroll the student in these classes by contacting the school counselor and completing the **Request to Enroll in Advanced Middle School Courses** form. This letter will remain on file at the student's middle school.

Questions?

If you have questions or would like more information, please contact the Department of Secondary Curriculum at 972-8525.

March 2015