

New Mathematics Requirements for High School Graduation

On February 1, 2006, the Kentucky Board of Education approved the amendment to 704 KAR 3:305. Minimum requirements for high school graduation.

The new high school math requirement requires students to take one mathematics course each year of high school beginning with the graduating class of 2012.

Question: What mathematics courses are required for the graduating class of 2012?

Answer: Students are required to have three credits in mathematics and to take mathematics every year. Required courses include: Algebra I, Geometry, and Algebra II. An integrated, applied, interdisciplinary, technical or occupational course that prepares a student for a career path based on the student's Individual Learning Plan may be substituted for a traditional Algebra I, II or Geometry course. This decision is made on an individual student basis. These courses must meet the content standards in the *Program of Studies*.

Question: If Algebra I is taken in middle school, is high school credit given for Algebra I?

Answer: The regulation states that high schools must accept credit toward high school graduation for high school coursework taken by students in grade five, six, seven or eight if the content of the course is the same as that in the Program of Studies, the teacher is certified in the subject area at the middle grades or secondary level, and the district has criteria in place to make a reasonable determination that the student is capable of success in the high school course. This regulation covers other high school courses as well, not just mathematics courses. That would mean that if a student can demonstrate that they understand Algebra I (or another HS class) the school district must allow them to move on to a higher level of mathematics. This might include classes taken in a special university summer program or information learned by independent study if it fits the above regulations. The district is not required to include a grade on the transcript, but must allow the student to move to higher-level mathematics classes. Once a student is in HS, if a student has only higher level math courses on the HS transcript such as Algebra II and Geometry or Precalculus and Calculus, it is assumed that they have mastered Algebra I or any lower course and it does not need to show on a HS transcript.

A school must accept for credit toward graduation any course a student successfully completes through the Kentucky Virtual High School and incorporate the grade the student receives in a Kentucky Virtual High School course in calculating that student's grade point average without distinction between the grade received in the Kentucky Virtual High School course and courses taught within the school district for which the student receives a grade.

Question: If students receive credit for Algebra I or Geometry in middle school, do they still need to take mathematics every year in high school?

Answer: 704 KAR 3:305 states that students must take mathematics every year of high school. That is different than a requirement that students receive four years of high school math credit. If a student is enrolled in a high school for any given year, he/she must take mathematics that year. That could mean that a student has taken all of Algebra I, Geometry, and Algebra II before ever entering high school. If that is the case, the student must then take four more years of mathematics while enrolled in high school. These courses could be a variety of Advanced Placement courses or other mathematics courses such as discrete mathematics or statistics. If a student happens to graduate in only three years, he/she would just need the three years of mathematics. Other students may need four years to master the content of Algebra I, Geometry and Algebra II. The regulation still only requires three mathematics credits as provided in the *Program of Studies*.

Question: If students take integrated mathematics courses rather than courses labeled Algebra I, II, and Geometry, will these count towards graduation?

Answer: A local board of education may substitute an integrated, applied, interdisciplinary, technical or occupational course or higher-level course for a required course if the alternative course provides rigorous content and addresses the same *Program of Studies*. Again, this applies to other subject areas as well.

Question: Will a student graduating in 2012 and beyond be able to count a prealgebra course as one of the three required mathematics credits?

Answer: No. A prealgebra course shall not be counted as one of the three required mathematics credits for high school graduation but may be counted as an elective.

Question: Do these new minimum mathematics requirements apply to students graduating from high school before 2012?

Answer: No. These graduation requirements do not apply to students graduating prior to 2012 unless a school district has adopted a graduation policy that requires additional mathematics courses beyond the current minimum requirements (Algebra I, Geometry, and a third mathematics course). Local school districts may increase the graduation requirements beyond the minimum requirements set by the Kentucky Board of Education.

Kentucky Department of Education
Office of Teaching and Learning
Division of Curriculum
Ann Bartosh, Mathematics Consultant