
High School Mathematics Course Standards

The Background:

In 2010, the board approved adoption of the Common Core State Standards for mathematics. In October 2013 the board approved the Common Core State Standards for mathematics by course (Algebra I, Geometry, Algebra II in the traditional pathway and Core Math I, Core Math II, Core Math III in the integrated pathway). However, the Tennessee Diploma Project standards for the further high school mathematics courses were not revised. The Common Core State Standards for mathematics standards for the further high school math courses need to be revised to ensure alignment and coherence with the Common Core State Standards for mathematics in Algebra I, Algebra II, and Geometry courses. The further math courses are:

- Advanced Algebra and Trigonometry
- Statistics
- Discrete Mathematics with Statistics & Probability
- Precalculus
- Calculus
- Bridge Math Course
- Senior Finite Math

Rules, Regulations, and Minimum Standards of the State Board of Education 0520-01-03-.05(1) calls for the State Board of Education to adopt curriculum standards for each subject area, grades K-12. The approved standards are to be the basis for planning instructional programs in each local school system. Section 3.205 Approved High School Courses of the State Board of Education Policy identifies those courses which have been approved by the Board for instruction across the state.

The State Board of Education High School Policy, 2.103 (updated 2/1/2013) states that students are required to complete four units of mathematics including Algebra I and II, Geometry or the equivalent, and an additional mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year.

Section 3.205 Approved High School Courses of the State Board of Education Policy

7. Mathematics

7.1. Mathematics Course Sequence

- 7.1.1. Foundations I, II, Algebra IA
- 7.1.2. Algebra I/Core Math I
- 7.1.3. Geometry/Core Math II
- 7.1.4. Algebra II/Core Math III
- 7.1.5. Advanced Algebra and Trigonometry*
- 7.1.6. Statistics*

- 7.1.7. Discrete Mathematics with Statistics & Probability*
- 7.1.8. PreCalculus*
- 7.1.9. Calculus*
- 7.1.10 Advanced Placement Statistics
- 7.1.11 Advanced Placement Calculus AB/BC
- 7.1.12 Bridge Math Course*
- 7.1.13 Senior Finite Math*
- 7.1.14 Tier III Mathematics Intervention

*additional course

The further high school math courses have been revised in three key ways:

- Removed overlaps and gaps between these courses and the Common Core Math Courses: The adoption of the Common Core State Standards in 2010 and the approval of the high school standards by course in 2013 (Algebra I, Geometry, Algebra II in the traditional pathway and Core Math I, Core Math II, Core Math III in the integrated pathway) has resulted in a small number of overlaps and gaps between some of the content in the further high school mathematics courses.
- Added the Common Core plus (+) standards: The Common Core State Standards for high school include plus (+) standards that are not included in any of the three required high school courses. According to the Common Core State Standards, the plus (+) standards are “additional mathematics that students should learn in order to take advanced courses” (p. 57). While the standards for the further courses are largely unchanged, plus (+) standards were placed in the applicable courses in the following three ways:
 - 1) Replaced similar Tennessee Diploma Project (TDP) content
 - 2) Added content which is not addressed in the three required courses
 - 3) Provided additional coherence for particular topics
- Replaced the TDP Process Standards with the Standards for Mathematical Practice: The Common Core State Standards for mathematics include Standards for Mathematical Practice. The Practice Standards are based on NCTM’s Process Standards that were used to inform the TDP Process Standards. The Practice Standards are also based on the National Research Council’s Report “Adding It Up.” The Practice Standards describe the varieties of expertise, habits of mind, and dispositions that proficient students of mathematics possess in all grade levels. The Practice Standards have replaced the TDP Process Standards in the further courses.

The Recommendation:

The Department of Education recommends acceptance of this item on first reading. The SBE staff concurs with this recommendation.