

**Approved High School Courses: Mathematics**

---

**Part 1: Integrated Math Courses Aligned with Common Core State Standards**

**The Background:**

*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 Department of Education proposed adoption of the Common Core State Standards for Mathematics by course.

The high school math standards are organized by conceptual category. The standards are divided into two different course sequences: Integrated Math sequence (Core Math I, II, and III) and the Traditional Math sequence (Algebra I, Geometry, and Algebra II). We are proposing to call the courses in the integrated sequence Core Math I, II, and III.

**Part 2: Response to Instruction and Intervention, Tier III Intervention Course**

**The Background:**

*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 Department of Education proposes adoption of a Tier III Math Intervention course for high school that will follow component four of the Response to Instruction and Intervention Initiative.

Through the Response to Instruction and Intervention Initiative, Tier III addresses 3-5 percent of students who have received Tier I instruction and Tier II intervention and continue to show marked difficulty in acquiring necessary mathematics skill(s). It could also include students who are one and a half (1.5) to two (2) years behind or who are below the 10<sup>th</sup> percentile and require the most intensive services immediately. Students at this level should receive daily, intensive, small group intervention targeting specific areas of deficit; this intervention may be in addition to interventions received in Tier II.

A high school Tier III intervention course is needed because struggling learners need more time and instruction to learn and apply strategies and concepts. For some students, Tier II interventions will not be sufficient to successfully meet their needs, and they will require intervention that is explicit and focused on the area of skill deficit. Increasing frequency and duration is required in Tier III. One of the most frequently encountered barriers for high school implementation of RTI is scheduling issues. More time in and of itself is not the answer and it will not increase student academic growth. If the same strategies and curriculum are delivered in the same way, such as in a Credit Recovery system, student's specific needs will not be met. The intervention time must be targeted to the specific needs, or deficits of the student. Needs are identified through assessment. Because the needs of Tier III students are very specific and skill based, smaller instructional groupings are needed. Tier III interventions are progress monitored more frequently to see if students are acquiring the needed skills (at least once every other week). For students with significant deficits, the majority of the reading materials in Tier I classes will be too difficult for them to access. School teams determine the student's skill deficit(s) and provide the needed interventions for these students so that they can access Tier I material at an instructional or independent level.

A high school Tier III intervention course will not have specific standards or be based on the Common Core State Standards. The mathematics courses will use assessments to determine the specific student needs or deficits. Tier III interventions should be systematic, research-based interventions that target the student's identified area of deficit (mathematics calculation or mathematics problem solving). The interventions are developed at the school level based on the unique needs of the students and thus do not adhere to grade-level standards. Students in need of Tier III interventions are significantly below grade-level.

### **The Recommendation:**

The Tennessee Department of Education recommends acceptance of the Common Core State Standards for Mathematics by course and the Tier III Mathematics Intervention course on first reading. The SBE staff concurs with this recommendation.

## Proposed Policy

### Section 3.205 Approved High School Courses of the State Board of Education Policy 7. Mathematics—the third footnote

\*\*\*Algebra I, Geometry, and Algebra II may be substituted (if available) with an equivalent course (same content standards) with different instructional methodology such as honors, CTE, or extended time (A/B courses). A courses are elective credit only. Math content credit is awarded upon completion of the B courses. Note: Core Math I, II, & III courses may substitute for Algebra I, Geometry, & Algebra II in its entirety.

#### 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](#)

\*All students who enter high school beginning in 2009-10 must earn four credits in high school mathematics including Algebra I, Geometry, and Algebra II or the equivalent, and another mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year.

Students enrolled in high school prior to 2009-10 must earn at least three credits in high school mathematics which must include a course equivalent to Algebra I. Students who entered high school in 2005-06 will also be required to complete one of the following: Geometry, Technical Geometry, Algebra II, or Integrated Mathematics II as part of the three required units.

\*\* Foundations I & II courses are elective credit only for students who enter high school beginning in 2009-10. Students who entered high school prior to 2009-10 may receive a maximum of one mathematics credit for a course in Foundations I, Foundations II, Technical Math (formerly known as Mathematics for Technology I) or Algebra IA. Students who enter high school prior to 2005-06 may receive a maximum of two credits for these courses. Note: Technical Math will no longer be offered effective 2009-10.

\*\*\*Algebra I, Geometry, and Algebra II may be substituted (if available) with an equivalent course (same content standards) with different instructional

methodology such as honors, CTE, or extended time (A/B courses). A courses are elective credit only. Math content credit is awarded upon completion of the B courses. Note: ~~CoreIntegrated~~ Math I, II, & III courses may substitute for Algebra I, Geometry, & Algebra II in its entirety.

\*\*\*\*The Bridge Math course is designed for students who have not scored 19 or higher on the ACT by the beginning of the senior year. The Finite Senior Math course is designed for students who do not wish to take a more traditional STEM math course. These courses are currently under development with planned implementation to serve students graduating under the Ready Core requirements pending board approval.

## Current Policy

Section 3.205 Approved High School Courses of the State Board of Education Policy  
7. Mathematics—the third footnote

### 7. Mathematics

- 7.1. Mathematics Course Sequence \*
  - 7.1.1. Foundations I, II, Algebra IA\*\*
  - 7.1.2. Algebra I\*\*\*
  - 7.1.3. Geometry\*\*\*
  - 7.1.4. Algebra II\*\*\*
  - 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\*\*\*\*

\*All students who enter high school beginning in 2009-10 must earn four credits in high school mathematics including Algebra I, Geometry, and Algebra II or the equivalent, and another mathematics course beyond Algebra I. Students must be enrolled in a mathematics course each school year.

Students enrolled in high school prior to 2009-10 must earn at least three credits in high school mathematics which must include a course equivalent to Algebra I. Students who entered high school in 2005-06 will also be required to complete one of the following: Geometry, Technical Geometry, Algebra II, or Integrated Mathematics II as part of the three required units.

\*\* Foundations I & II courses are elective credit only for students who enter high school beginning in 2009-10. Students who entered high school prior to 2009-10 may receive a maximum of one mathematics credit for a course in Foundations I, Foundations II, Technical Math (formerly known as Mathematics for Technology I) or Algebra IA. Students who enter high school prior to 2005-06

may receive a maximum of two credits for these courses. Note: Technical Math will no longer be offered effective 2009-10.

\*\*\*Algebra I, Geometry, and Algebra II may be substituted (if available) with an equivalent course (same content standards) with different instructional methodology such as honors, CTE, or extended time (A/B courses). A courses are elective credit only. Math content credit is awarded upon completion of the B courses. Note: Integrated Math I, II, & III courses may substitute for Algebra I, Geometry, & Algebra II in its entirety.

\*\*\*\*The Bridge Math course is designed for students who have not scored 19 or higher on the ACT by the beginning of the senior year. The Finite Senior Math course is designed for students who do not wish to take a more traditional STEM math course. These courses are currently under development with planned implementation to serve students graduating under the Ready Core requirements pending board approval.