## The Washington State Board of Education

Governance | Achievement | High School and College Preparation | Math & Science | Effective Workforce

## Math Credit Rule

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  - 1. What is the new three-credit math rule?

At the instigation of the legislature, the SBE amended the graduation requirements rule (WAC 180-51-066) to add a third credit of math and to prescribe the content of those credits. The rule was adopted in July 2008 and is in effect for the graduating Class of 2013.

2. Are there specific math credits students have to earn for the first two credits?

Yes. Students must earn 1 credit in algebra 1/integrated math I, and a second credit in geometry/integrated math II, or earn credits in the relevant career and technical education (CTE)-equivalent courses.

3. How are CTE-equivalent courses determined?

Each local district determines CTE-equivalent courses, and are required to do so by law (<u>RCW 28A.230.097</u>). A sample of CTE credit equivalency policy and procedure is available (<u>pdf</u>). An Equivalency Toolkit can be found <u>here</u>.

4. Can students take two of the required courses at the same time?

Yes, per the rule change effective October 22, 2010.

5. What courses may students take for the third math credit?

Students may take algebra 2, integrated math III, <u>or</u> a rigorous, high school level math course that meets the student's education and career goals identified in the student's high school and beyond plan. Algebra/integrated mathematics I and geometry/integrated mathematics II (or their equivalent CTE courses) form the basis of a student's mathematical experiences. The intent of the third credit is to enrich and build upon those experiences.

- 6. If students want to take a course *other than* algebra 2 or integrated math III for their third math credit, what do they have to do?
  - Choose a course that is based on a career-oriented program of study identified in their high school and beyond plan
  - Meet with a high school representative and their parent/guardian to discuss their goals and the admission requirements of two and four-year colleges
  - Sign a form, along with the high school representative and parent/guardian, to acknowledge that: 1) the meeting was held, 2) the required information was discussed, and 3) all parties agree that the course is more appropriate for the student's education and career goals.
- 7. How is the meeting and signature process intended to work?

The Board intends for the meeting and signature process to be an individualized conversation involving the three key interested parties: the student, parent/guardian, and high school representative.

8. Will any course work for the third credit of math?

The State Board of Education intends for the third credit to be a rigorous, high school level math course that will serve the student's education and career goals. Courses in which the majority of the math is at a K-8 level would not qualify for the third credit. Traditional math examples may include, but are not limited to: statistics, discrete math, linear algebra, and mathematical modeling.

9. Would career and technical education (CTE) mathematics courses satisfy the third credit of mathematics?

Yes. If the majority of the course is high school level math, the title of the class is immaterial. CTE math examples might include, but are not limited to OSPI-approved frameworks in: robotics, engineering design I and II, drafting for civil and architectural

engineering, construction math, applied mathematics, business economics math, financial literacy, and business statistics. See the newest CTE frameworks at:

- Financial Math Economics: <u>http://www.k12.wa.us/CareerTechEd/clusters/Finance/FinancialMath-Economics.doc</u>
- Financial Fitness: <u>http://www.k12.wa.us/CareerTechEd/clusters/Business/FinancialFitnessFramework8-21-09.doc</u>
- Financial Math Business Statistics: <u>http://www.k12.wa.us/CareerTechEd/clusters/Marketing/FinancialMath-BusinessStatistics270305.doc</u>
  - 10. Can physics count as the third credit of math?

Yes. If the majority of the course is high school level math, the title of the class is immaterial. Districts will need to make these determinations locally by clearly identifying the standards and competencies the course represents. Students will need to earn the minimum state-required credits, as well as any local credits, to satisfy graduation requirements. In other words, if physics counts as the third math credit, the student will still need, under current rules, to earn separately the state-required 2 credits of science.

11. Can a support class in conjunction with algebra work for the third credit?

No. The support class may count as an elective credit, but it cannot satisfy the third credit of math. Algebra 1/integrated mathematics I and geometry/integrated mathematics II <u>or</u> their equivalent CTE courses form the basis of a student's mathematical experiences. The intent of the third credit is to enrich and build upon those experiences.

- 12. Could a student take algebra 1 for two years, counting the first credit as algebra I and the second year as a third credit?
  - No. Students have the flexibility of taking:
    - algebra 1/integrated mathematics I and geometry/integrated mathematics II concurrently
    - OR
    - geometry/integrated mathematics II and the third credit of math concurrently

However, they do not have the flexibility of taking the first and third credits at the same time. Equivalent CTE courses may be substituted for all of the courses listed above

- 13. Can students take algebra 1 for two periods and count it as the first and third credit of math?
  - No. Students have the flexibility of taking:
    - algebra 1/integrated mathematics I and geometry/integrated mathematics II concurrently

• geometry/integrated mathematics II and the third credit of math concurrently

However, they do not have the flexibility of taking the first and third credits at the same time. Equivalent CTE courses may be substituted for all of the courses listed above

14. We plan to offer a math class designed for those students who haven't passed one or more of the end-of-course assessments, but have earned the first two credits of math in the designated math or CTE-equivalent classes. Could this class count as the third credit of math?

Yes, this type of class may count as the third credit of math if the following conditions are met:

- a. the math class is rigorous, high school level math that helps the students meet his or her education and career goals, <u>and</u>
- b. the math class is not the same as the original algebra 1/integrated math I and/or geometry/integrated II classes.
- 15. Can students begin earning the three credits with a more advanced math class than algebra 1?

Yes, per the rule change effective October 22, 2010. Based on written district policy, students may enroll in higher level classes that meet their high school and beyond plan; in effect, they can "skip over" one or more lower level classes. Students will still need to earn three math credits toward high school graduation.

If a student "skips over" algebra 1/integrated mathematics I, the student will need to earn credit in:

• geometry/integrated mathematics II, algebra 2/integrated mathematics III, and one other math credit based on the student's educational and career goals as expressed in the high school and beyond plan.

If a student "skips over" algebra 1/integrated mathematics I and geometry/integrated mathematics II, the student will need to earn credit in:

• algebra 2/integrated mathematics III, and two other math credits based on the student's educational and career goals as expressed in the high school and beyond plan.

Students will still be expected to complete the end-of-course assessments in algebra 1/integrated mathematics I and geometry/integrated mathematics II, even if they have "skipped over" the classes.

16. Which courses have end-of-course math assessments?

Algebra 1/integrated mathematics I and geometry/integrated mathematics II have end-of-course assessments required for graduation for the class of 2013 and beyond. Students enrolled in these courses, or their CTE-equivalents, will take the assessments during the last three weeks of the school year. 17. Do students have to pass the math end-of-course assessments before they attempt the third credit of math?

No.