

## MATH GRADUATION REQUIREMENTS

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**House Bill 4318 as reported from committee w/o amendment**

**Sponsor: Rep. Gary Howell**

**Committee: Workforce and Talent Development**

**Complete to 3-29-17**

Analysis available at  
<http://www.legislature.mi.gov>

### SUMMARY:

House Bill 4318 would amend the organization of the courses which may count toward the math graduation requirements under the Revised School Code (MCL 380.1278a).

Currently, the four credits of mathematics must include at least one credit each in algebra, geometry, and algebra II (or an integrated sequence of this course content that consists of three credits), and a fourth credit, such as trigonometry, statistics, pre-calculus, calculus, applied math, accounting, business math, a retake of algebra II, or a course in financial literacy.

Under the bill, the overall four-credit math requirement would remain the same, with algebra and geometry continuing to constitute two of those four credits. However, the third credit would be amended to read "*either algebra II or statistics*" (italicized words added in the bill), and statistics would be removed from the courses which may count as the fourth math credit.

The following provision exists in the current Code and remain unchanged by the bill: a student may fulfill the algebra II requirements by completing a MDE-approved formal career and technical education program or curriculum that has appropriately embedded mathematics content as described in the law. In addition, a student can complete algebra II over a two-year period; and each student must take a math course during the final year of high school enrollment.

The bill would take effect 90 days after it is enacted.

### FISCAL IMPACT:

The bill would have no fiscal impact for the state or for school districts, public school academies (PSAs), or intermediate school districts (ISDs).

### ARGUMENTS:

#### *For:*

According to the bill sponsor, statistics as an alternative to Algebra II presents the freedom that is missing from the inflexible Michigan Merit Curriculum. Especially for students participating in career and technical education programs, such rigid requirements limit the

ability to learn skills that will prepare them for future careers. Statistics may provide these students with a practical alternative that makes use of their talents.

***For:***

Some also argued that requiring Algebra II may fuel a higher dropout rate, as some students struggle with advanced mathematics concepts. Those students might feel ashamed and marginalized by the implication that "everyone" can master those concepts, or see Algebra II as an indication that school is preparing them for future schooling rather than providing them with life skills.

***Response:***

According to the National Conference of State Legislatures, one way to combat high school dropouts is to demand rigorous academic standards in schools, as a way to make school more challenging and meaningful to students. NCSL points to the fact that Michigan has increased math and science course requirements for high school graduation as an example of Michigan's dedication to rigor.<sup>1</sup>

***Against:***

Opponents argued that the change would reduce the rigor of the current Michigan math graduation requirement. They worried that certain students—especially special needs students and students of color—would be steered to the statistics course, not because it is better for them, but because it would be easier for the teachers and school.

***Response:***

Statistics teaches probability and the analysis and organization of data, subjects which may actually be more relevant in people's lives.

***Rebuttal:***

According to committee testimony, the Algebra II course includes 9-18 weeks of statistics instruction as a part of the 36 week course.

***Against:***

Additionally, the PSAT and SAT assessments test students in Algebra II concepts. By allowing students to opt for statistics, we are assuring them of lower test scores on these important tests. And, because test scores are part of teacher and school evaluations, teachers and schools for the students' lack of exposure to the content.

**POSITIONS:**

Representative of the following organizations testified in support of the bills.

- MAG Insulation (3-21-17)
- Van Buren ISD (3-21-17)
- Creative Many Michigan (3-21-17)
- ABC of Michigan (3-21-17)
- Michigan Manufacturers Association (3-21-17)
- Michigan Apprenticeship Steering Committee (3-28-17)
- Bricklayers and Allied Craftworkers (3-28-17)
- Owosso Public Schools (3-28-17)

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<sup>1</sup> <http://www.ncsl.org/research/education/at-risk-students-dropout-prevention-and-recovery.aspx>

The following organizations support the bills:

- ESA Legislative Group (3-21-17)
- Wayne RESA (3-21-17)
- Home Builders Association of Michigan (3-21-17)
- Oakland Schools (3-21-17)
- West Michigan Talent Triangle (3-28-17)

Michigan Association of Secondary School Principals is neutral on the bills. (3-28-17)

Representatives of the following organization testified in opposition to the bill:

- Michigan Council of Teachers of Mathematics (3-28-17)

The following organizations oppose the bills:

- Detroit Regional Chamber (3-21-17)
- Education Trust Midwest (3-28-17)

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■ This analysis was prepared by nonpartisan House Fiscal Agency staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.