

Minnesota Council of Teachers of Mathematics

PO Box 130816 · Roseville, MN 55113 (651) 335 - 7595

Email: mctm@mctm.org

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To Chair Steve A. Cwodzinski, Vice Chair Erin K. May Quade, and Ranking Minority Leader Julia E. Coleman, MN Education Policy Committee Leadership:

Minnesota Council of Teachers of Mathematics (MCTM) response to the proposed Senate File 360 and House Bill 802 - changes to the required academic standards, graduation requirements and credit equivalences.

The Minnesota Council of Teachers of Mathematics (MCTM) strongly advocates for the teaching and learning of meaningful mathematics education, recognizing its critical role in ensuring the success of every student across Minnesota. MCTM firmly opposes the following three proposed changes to legislation.

- House Bill 802/Senate File 360, Section 1, section 120B.021, subdivision 1, lines
 1.10-1.13 as it eliminates the language around three credits of math for grades 9-12.
- House Bill 802/Senate File 360, Section 2, Minnesota Statute 2024, Section 120B.024, Subdivision 1, lines 2.29-2.30, we oppose the elimination of "all of" in regards to Graduation requirements being decided by individual school districts.
- House Bill 802/Senate File 360, Section 2, 120B.024, Subdivision 2, (h) lines 4.15-4.17, a personal finance credit should only be allowed if the personal finance course covers the math standards, not as a replacement.

The quotes below highlight vital elements of the <u>2022 Minnesota K-12 Academic Standards in Mathematics</u>, connected to these important issues.

The goal of mathematics education is to prepare each and every student for effective participation in society, including their career(s), post-secondary education and daily decision making about everything from finances, personal health, civic discourse and policy making to their ability to comprehend and analyze data. All students should learn mathematics "in order to expand professional opportunities, understand and critique the world, and experience the joy, wonder and beauty of mathematics" (National Council of Teachers of Mathematics (NCTM), 2018).

Mathematics education needs to evolve with the constant cultural and technological changes in our society. The importance of math education, related to career, college and community readiness, is supported by the World Economic Forum's Future of Jobs Report (World Economic Forum, 2022). The report lists complex problem-solving, critical thinking, reasoning, analytical thinking and active learning in its list of Top Ten Workplace Skills. These are all skills that are developed in the study of mathematics throughout a student's K–12 experience.

Mathematically literate students have the experiences, mindset, knowledge and skills to be career and college ready and engage as productive members in their community. They are empowered to use mathematics as a resource to successfully navigate pathways towards achieving their aspirations. (MDE Career and College Readiness (CCR) Resource Guide).

The proposed graduation requirements change to 'including elements of algebra, geometry and statistics' diverges significantly from our mission of "preparing each and every student for effective participation in society, including their careers, post-secondary education, and daily decision-making." To cultivate complex problem-solving, critical thinking, reasoning, and analytical thinking essential for success in an ever-evolving world, it is necessary to have three credits of math including patterns and relationships (algebra), spatial reasoning (geometry) and data analysis (statistics) as defined in the 2022 Minnesota Academic Standards in Mathematics.

By delegating decision-making to individual school districts, we risk creating a landscape where Minnesota students graduate with varying levels of experience and knowledge. This inconsistency jeopardizes students' access to achieving the high standards mandated by the Minnesota Comprehensive Assessment and will inadvertently foster educational gaps that hinder our students' preparedness for further studies at colleges, trade schools, and those who enter our MN workforce. Moreover, the recently released 2024 NAEP data reveals the achievement gap in 8th-grade mathematics is widening. The inconsistency in graduation requirements threatens to exacerbate the challenges faced by students, particularly those who are already struggling to meet grade-level expectations. It also poses a risk for high-achieving students, as they may be deprived of advanced course options necessary to continue their academic growth. By maintaining consistent, high standards in mathematics education, we can continue to position Minnesota as a leader in fostering a skilled and capable workforce.

The personal finance literacy legislation should not fulfill a mathematics credit. The 2022 MN mathematics standards include financial literacy standards, the financial literacy standards do not include much of our patterns and relationships standards. Downgrading this requirement has far reaching implications for equitable access to STEM careers. Minnesota needs to be preparing our students for the future, not moving backwards to a de facto requirement of 2.5 years of mathematics, which would place us 47th in the nation (National Center for Education Statistics, 2018). Our state economy depends on us having a better educated workforce than our competitors and having high standards will allow us to continue to lead.

In summary, a lack of uniformity in graduation requirements not only hampers individual student progress but also contributes to a broader educational divide, hindering the potential for all students to thrive. A three-year program of consistent mathematics instruction empowers every Minnesota student to meet the high expectations set by the Minnesota Comprehensive Assessment, prepares students for advanced studies in colleges and trade schools and also equips those entering the Minnesota workforce with the essential skills needed to thrive, contributing to a brighter future for our state.

Changes to the required academic standards, graduation requirements and credit equivalencies as identified in House Bill 802 and Senate File 360 compromises our students' experiences, mindset, knowledge and skills with mathematics to be career and college ready and engage as productive members in their community. MCTM stands firmly in opposition and urges the legislature to reject the proposed changes to legislation.

Sincerely, Kristin Johnson MCTM President