Background

The College and Career Readiness Act of 2013 established the statutory language found in Maryland Education Code Annotated 7-205.1. This statute established that "Beginning with the 9th grade class of 2014, each student shall enroll in a mathematics course in each year of high school that the student attends high school." http://mgaleg.maryland.gov/2013RS/bills/sb/sb0740E.pdf

The Maryland State Department of Education adopted the regulations below which stem from this statute.

COMAR 13A.04.12.01 Mathematics Instructional Programs for Grades Prekindergarten — 12.

(2) Offer in public schools a mathematics program in grades 9—12. Beginning with students entering grade 9 in the 2014—2015 school year, each student shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement and to select mathematics and mathematics-related courses that shall include:
   (a) Mathematics Transition Course;
   (b) Algebra II;
   (c) Pre-Calculus;
   (d) Discrete Mathematics,
   (e) Linear Algebra;
   (f) Probability and Statistics;
   (g) AP© Computer Science;
   (h) AP© Calculus (A/B);
   (i) AP© Calculus (B/C);or
   (j) A Computer Science course that is not AP© Computer Science if the local school system determines the course meets the mathematics standards required by this regulation.

and ,

COMAR 13A.03.02.03 Enrollment and Credit Requirements.

A. Beginning with students entering the 9th grade class of 2014—2015 school year, each student shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement.

Students who entered the 9th grade during the 2014-2015 school year, reached junior status during the 2016-2017 school year.   From this year forward, as districts schedule students for their senior year classes, questions may arise related to the mathematics every year enrollment requirement. This document offers answers to some of the most frequently asked questions related to the Mathematics Course Each Year of High School enrollment requirement.

> **Mathematics Course Each Year of High School Enrollment Requirement**
> *Frequently Asked Questions*

Please note the Mathematics Admissions requirements for schools in the University System of Maryland below.

The University System of Maryland (USM) Board of Regents in December 2009 approved an academic policy that requires incoming freshman undergraduates to have completed four years of high school math. The requirement first applied to student applicants who entered ninth grade in Fall 2011 (Seniors during 2014-2015). The coursework must include Algebra I, Geometry, and Algebra II. Students who complete Algebra II before their senior year must also complete the fourth-year math requirement. They can do so by taking a course during their senior year that utilizes non-trivial algebra. Examples of courses meeting this requirement include Algebra II, Trigonometry, Precalculus, Calculus and successor courses, Statistics, and College Algebra. An important feature of any such course is that it utilizes algebra in a substantive way, so the student does not lose the algebraic and numerical skills achieved in earlier courses.

The University System of Maryland is comprised of: Bowie State University; Coppin State University; Frostburg State University; Salisbury University; Towson University; University of Maryland, Baltimore; University of Maryland, Baltimore County; University Center for Environmental Science; University of Maryland, College Park; University of Maryland, Eastern Shore; University of Maryland, University College; and University of Baltimore.

FAQs

The following questions and answers apply to students who attend Maryland public schools. Students considering applying to a school in the University System of Maryland should be aware that USM answers to the same questions might differ. USM responses appear in red.

1. **Can a course taken between the 11ᵗʰ and 12ᵗʰ grade fulfill the mathematics every year enrollment requirement?**

   o **MSDE Response**
     If an LEA awards credit for mathematics coursework taken for original credit between the junior and senior year then this mathematics coursework may satisfy the mathematics every year enrollment requirement. Coursework taken during the summer for the purpose of credit recovery does not fulfill this requirement.

   o **USM Response**
     A student is required to complete an acceptable course *during* the final year of high school, to prevent the loss of algebraic and numerical skills achieved in earlier courses.

2. **Can the requirement that students be enrolled in a mathematics course in each year of high school be waived?**

   o **MSDE Response**
   No, the mathematics every year requirement is written in Maryland statue. There is no exception or waiver built into the statute.

   o **USM Response**
   Students who do not complete the required four courses may be considered for admission as an exception to the admissions policy. Note that exceptions are limited to 15% of the institution's entering freshman class.

3. **Can an online mathematics course count?**

   o **MSDE Response**
   Yes, a student may satisfy the mathematics every year enrollment requirement by enrolling in an online mathematics course that appears on the list of MSDE Student Online Course offerings. This list may be accessed via the provided link. Either MSDE or an MSDE approved third party reviewing company has reviewed the courses on this list. LEAs are encouraged to review the course content of selected courses prior to assigning a student to a selected online course.
   https://msde.blackboard.com/webapps/portal/execute/tabs/tabAction?tab_tab_group_id=_104_1

   o **USM Response**
   If an acceptable course is completed online and the course and grade appear on the official high school transcript, it may be applied to satisfy the requirement.

4. **Can enrollment in a mathematics course for only one semester count for school systems that are on the 4x4-block schedule?**

   o **MSDE Response**
   Yes, in a 4x4-block schedule it is only necessary that a student enroll in a mathematics course for one semester.

   o **USM Response**
   Yes, but this is a complex issue. A student who attends a school that follows a 4x4-block schedule is encouraged to take a mathematics course during the second semester of his/her senior year.   This practice decreases the time away from mathematics instruction. A student who applies for early admission should make it clear that his/her senior year schedule includes a mathematics course.

5. **Can a lunch pullout program fulfill this requirement?**

   o **MSDE Response**
   No, a student must enroll in a credit bearing mathematics course.

   o **USM Response**
   No, a student must complete a credit bearing mathematics course during his/her senior year.

6. **How long does a student need to enroll in a mathematics course each year?**

   o **MSDE Response**
   The student should enroll for the length of time required to earn one mathematics credit.

   o **USM Response**
   A student should enroll in a mathematics class for the length of time required to earn one mathematics credit.

7. **Can enrollment is a business mathematics course satisfy the mathematics every year requirement?**

   o **MSDE Response**
   If an LEA awards mathematics credit for a business mathematics course, then enrollment in the course satisfies the requirement.

   o **USM Response**
   The course would need to be evaluated and deemed acceptable by the USM Mathematics Faculty Committee. An important feature of such a course is that it utilizes algebra in a substantive way, so the student does not lose the algebraic and numerical skills achieved in earlier courses.

8. **Can enrollment in a computer science course count?**

   o **MSDE Response**
   Yes, enrollment in a computer science course satisfies the mathematics every year requirement. Computer Science is listed in COMAR 13A.04.12.01 as a mathematics-related course that satisfies the mathematics every year requirement.

   o **USM Response**
   Computer Science may be one of the four required courses, but NOT the final course.

9. **Which math-related CTE courses are as a matter of MSDE policy identified as math-related courses that could fulfill this requirement?**

   o **MSDE Response**
   There were no senior-level, math-related CTE program courses identified that may be used to fulfill this requirement. It was determined that if a student completed a program that led to National Institute for Metalworking Skills(NIMS) certification that successful completion of the program in its entirety satisfies the mathematics every year requirement because of the mathematics infused throughout the program.

   o **USM Response**
   Any CTE course would need to be evaluated and deemed acceptable by the USM Mathematics Faculty Committee for the every year requirement or for the final year requirement.

10. **Can repeating a class for which a student has previously received credit fulfill this requirement?**

   o **MSDE Response**
   Yes, if a student earned a credit in a mathematics course but did so with a low grade he/she may elect to repeat the course to deepen his/her understanding. If retaking a mathematics course is in the best interest of a student then this is an acceptable practice.

   o **USM Response**
   This may be considered if the course being repeated is at the level of Algebra II or higher.

11. **Can a community college mathematics course count?**

   o **MSDE Response**
   Yes, it is important that a student stay engaged in mathematics every year. Enrollment in either a credit-bearing or a non-credit bearing mathematics course at a community college would provide a means for a student to stay engaged in mathematics.

   o **USM Response**
   If the course utilizes non-trivial algebra, such as that found in an Intermediate Algebra course, and/or meets the general education requirement of the Maryland community college, it may meet the requirements. An important feature of any such course is that it utilizes algebra in a substantive way, so a student does not lose the algebraic and numerical skills achieved in earlier courses.

12. **If a student earns four mathematics credits by the end of his/her junior year, does he/she still need to take a mathematics class in the senior year?**

    o **MSDE Response**
    Yes, COMAR 13A.03.02.03 states "*a student shall enroll in a mathematics course in each year of high school that the student attends, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement.*"

    o **USM Response**
    Yes, a student must stay engaged in mathematics instruction in each year of high school that the student attends.

13. **Are early graduates required to take 4 years of mathematics in high school, or can the math credits earned in middle school suffice?**

    o **MSDE Response**
    Early graduates need to take a mathematics course in each year of high school attended. Refer to COMAR 13A.03.02.03. This regulation states, "*a student shall <u>enroll in a mathematics course in each year of high school that the student attends</u>, up to a maximum of 4 years of attendance, unless in the 5th or 6th year a mathematics course is needed to meet a graduation requirement.*"

    o **USM Response**
    A student who has successfully completed a mathematics course in each year of high school he/she attended, with the final mathematics course completed at the level of Algebra II or higher, has satisfied the USM mathematics admission requirement.

14. **Can enrollment in a Mathematics Transition Course satisfy the mathematics every year enrollment requirement?**

    o **MSDE Response**
    Yes, as long as the mathematics transition course is a full one-credit course**.**

    o **USM Response**
    Any LEA created Mathematics Transition course would need to be evaluated and deemed acceptable by the USM Mathematics Faculty Committee for the final year requirement.