



**North Carolina Future-Ready Core Curriculum Graduation Requirements**

The guiding mission of the North Carolina State Board of Education is that every public student will graduate from high school, globally competitive for work and postsecondary education and prepared for life in the 21<sup>st</sup> century. Therefore, the NC State Board of Education approved two courses of study in September 2008: Future-Ready Core and Future-Ready Occupational Course of Study (OCS). SBE policy HSP-N-004

**To graduate meeting Future-Ready Core Requirements and Math Rigor Indicator Status:**

- All students must take and pass four math courses that are aligned with the students' after-high-school plans.
- Students seeking to complete the minimum application requirements for entrance to the UNC system must successfully complete four mathematics courses, which include a mathematics course with Math III as a pre-requisite.
- Math elective courses are available to prepare students as needed to meet required courses for graduation.
- If a student is demonstrating unusual difficulty in mastering mathematics concepts, a school may determine based on evidence provided that a student could take alternative math courses in order to meet graduation requirements via math substitution.
- It is highly recommended that students take at least one math course per year.
- Course sequences may not be offered at all ABSS high schools each semester. Please contact your school to determine specific course offerings.

**■ Denotes final course that must be completed in order to meet math requirements for graduation**

	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6	Course 7	Course 8
Sequence A	Introductory Math (Elective)	Foundations of Math 1 (Elective)	NC Math 1	Foundations of Math 2 (Elective)	NC Math 2	Foundations of Math 3 (Elective)	NC Math 3	Essentials of College Math
								AFM
								Discrete Mathematics
								CTE Course 4th Math
Sequence B	Foundations of Math 1 (Elective)	NC Math 1	Foundations of Math 2 (Elective)	NC Math 2	Foundations of Math 3 (Elective)	NC Math 3	Essentials of College Math	
							AFM	
							Discrete Mathematics	
							CTE Course 4th Math	
Sequence C	NC Math 1	NC Math 2	NC Math 3	Essentials of College Math	AP Statistics			
		Math II Honors 22015	Math III Honors 23015	AFM				
				Discrete Mathematics				
				Discrete Mathematics Honors				
Pre-Calculus Honors								
Sequence D	NC Math 2 Honors	NC Math 3 Honors	Pre-Calculus Honors	Calculus AP-AB	Calculus AP – BC	AP Statistics	This sequence assumes that a Math I credit was earned in middle school.	



**To graduate meeting Math Substitution of Future-Ready Core Requirements:**

- If a student is demonstrating unusual difficulty in mastering mathematics concepts, a school may determine based on evidence provided that a student could take two alternative math courses in addition to the minimum requirements of passing Math I & Math II in order to meet graduation requirements via math substitution.
- All students must take and pass four math courses from the sequence options (E - I) in the chart below.
- It is highly recommended that students take at least one math course per year. Some students, depending upon their performance and/or interest, may elect to take additional courses.
- Course Sequences are not offered at all Alamance-Burlington High Schools based on enrollment. Please contact your school to determine specific offerings.
- CTE Courses may be used as a substitute for Math III and Math IV (option I). Students must pass two additional courses or paired courses and any CTE prerequisites in order to fulfill the requirements.

**■ Denotes final course that must be completed in order to meet math substitution requirements for graduation.**

	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6
Sequence E	Introductory Math	Foundations of Math 1	NC Math 1	Foundations of Math 2	NC Math 2	
Sequence F	Foundations of Math 1	NC Math 1	Foundations of Math 2	NC Math 2	Alternate Math I 20402	Alternate Math II 20412
Sequence G	Foundations of Math 1	NC Math 1	NC Math 2	Alternate Math I 20402	Alternate Math II 20412	
Sequence H	NC Math 1	NC Math 2	Alternate Math I 20402	Alternate Math II 20412		
Sequence I	NC Math 1	NC Math 2	CTE Math Course from NCDPI document (burgundy column)	CTE Math Course from NCDPI document (burgundy column)	<i>Note: Prerequisites for the CTE Pairings do not count as one of the Math Substitution credit courses.</i>	



**To graduate meeting Algebra I (Math I) Exemption of Future-Ready Core Requirements:**

\*For students that are covered under N.C.G.S 115C-81(b) and are exempt from the Algebra 1 requirement per the IEP team due to a severe learning disability in mathematics, the following courses meet graduation requirements. Due to the fact that these courses are not offered every year, the sequence may be adjusted.

	Course 1	Course 2	Course 3	Course 4
Sequence J	Introductory Math	Foundations of Math 1	Alternate Math I 20402	Alternate Math II 20412

**To graduate meeting Future-Ready Occupational Course of Study (OCS) Requirements:**

- All students must take and pass 3 math courses.
- All students must complete a year-long Math I course. Districts in NC have a local option of naming the 1<sup>st</sup> course in the sequence for Course 2. If students transfer into ABSS they may have a different course title; however, the course code should be the same.

	Course 1	Course 2 Year Long Course	Course 3
Sequence K	Introduction to Math – 9220BX0COS (with HQ EC teacher) Introduction to Math - 9220BX0COV (Blended NCVPS)	Fall Semester Basic Math I – 28002X0COS (with HQ EC teacher) Basic Math I – 28002X0COV (Blended NCVPS) <hr/> Spring Semester Math I – 9221BX0COS (with HQ EC teacher) Math I - 9221BX0COV (Blended NCVPS)	Financial Management - 9222BX0COS (with HQ EC teacher) Financial Management – 9222BX0COV (Blended NCVPS)



**Appendix A: Course Code Crosswalk**

The following crosswalk illustrates the upcoming changes to NC math standards as it relates to course coding. As the table shows, new course codes and course titles will be used for the North Carolina Standard Course of Study high school math courses and to trigger EOC assessments. For further guidance on course coding schemes and structures, please review the [Course Code Guidance Document](#) located at: <http://www.nc-sis.org/courses.html>.

2015-16 Course Title	2015-16 Course Code	2016-17 Course Title	2016-17 Course Code	Course Code Triggers EOC?	Scheduled Department
Foundations of Math I	20502X0	Foundations of NC Math 1	20902X0	No	Math
Foundations of Math II	20512X0	Foundations of NC Math 2	20912X0	No	Math
Foundations of Math III	20522X0	Foundations of NC Math 3	20922X0	No	Math
Math I	21032X0	NC Math 1	21092X0	Yes	Math
Math I	21032Y0	NC Math 1	21092Y0	Yes	Math
Math I Honors	21035X0	NC Math 1 Honors	21095X0	Yes	Math
Math II	22012X0	NC Math 2	22092X0	No	Math
Math II	22012Y0	NC Math 2	22092Y0	No	Math
Math II Honors	22015X0	NC Math 2 Honors	22095X0	No	Math
Math III	23012X0	NC Math 3	23092X0	No	Math
Math III	23012Y0	NC Math 3	23092Y0	No	Math
Math III Honors	23015X0	NC Math 3 Honors	23095X0	No	Math
Math I	9221AX0	NC Math 1	9225AX0	No	ECS
Math I	9221BX0	NC Math 1	9225BX0	Yes	OCS
Math I A	9320AX0	NC Math 1 A	9324AX0	No	ECS
Math I B	9321AX0	NC Math 1 B	9325AX0	No	ECS

# Mathematics Graduation Requirements for Students

Effective for Freshmen Entering High School in 2012-2013 and BEYOND (Policy GCS-N-004 from <http://sbepolicy.dpi.state.nc.us/>)

Four mathematics credits\* are required for graduation. A student's post-secondary school plans should help determine the student's mathematics sequence.

Math I (2103)



Math II (2201)



Math III (2301)



a 4th mathematics course taken from one of the three columns to the right



All Four Mathematics Credits for Graduation

\* Four math credits do not have to include a fourth level math, but it is highly recommended that all students be given access to the highest levels of math.



The Policy listed above is the official State Board Education Policy on graduation requirements. The next four columns are intended as guidance and are subject to change based upon revisions to courses or standards at the high school and/or post-high school levels.

Only ABSS CTE Courses displayed (Courses with a P designation have a pre-requisite course).

Courses accepted as the 4th Level mathematics credit for admission into UNC System institutions	Students Planning to Attend Other Colleges, a Community College, or a Technical School**	Students Exempted by Principal from usual sequence (SUBSTITUTION)	Students Identified as Learning Disabled in Math
<p><b>NC Standard Course of Study Courses</b></p> <ul style="list-style-type: none"> <li>• 2400 – Adv Functions and Modeling</li> <li>• 2401 – Discrete Mathematics</li> <li>• 2402 – Integrated Math IV</li> <li>• 2403 – Pre-Calculus</li> <li>• 2408 – Essentials for College Math (SREB READY)</li> </ul> <p><b>Community College Courses</b></p> <ul style="list-style-type: none"> <li>• 2722 – CCP-MAT172 – Precalculus Trigonometry</li> <li>• 2723 – CCP-MAT271 – Calculus I</li> <li>• 2724 – CCP-MAT171 – Precalculus Algebra</li> <li>• 2C015 – MAT 143 – Quantitative Literacy</li> <li>• 2C025 – MAT 152 – Statistical Methods I</li> <li>• 2C055 – MAT 263 – Brief Calculus</li> <li>• 2C075 – MAT 272 – Calculus II</li> <li>• 2C115 – MAT 252 – Statistics II</li> <li>• 2C125 – MAT 273 – Calculus III</li> <li>• 2C135 – MAT 280 – Linear Algebra</li> <li>• 2C145 – MAT 285 – Differential Equations</li> <li>• 2C155 – MAT 141 – Mathematical Concepts I</li> <li>• 2C165 – MAT 142 – Mathematical Concepts II</li> <li>• 2C175 – MAT 167 – Discrete Math</li> </ul> <p><b>AP and IB Courses</b></p> <ul style="list-style-type: none"> <li>• 2501 – AP CALCULUS AB</li> <li>• 2502 – AP CALCULUS BC</li> <li>• 2511 – AP STATISTICS</li> <li>• 2I008 – IB Computer Science SL</li> <li>• 2I018 – IB Computer Science HL</li> <li>• 2I028 – IB Mathematical Studies SL</li> <li>• 2I038 – IB Mathematics SL</li> <li>• 2I048 – IB Mathematics HL</li> <li>• 2I058 – IB Further Math HL</li> </ul> <p><i>Due to the Curriculum Improvement Project at the NC Community College system, many courses were revised or archived. If not on this list, but on a previous math options chart and taken prior to 2014-15 SY, they are still acceptable. This includes lab component for many of the archived courses. Most math labs were incorporated into the revised courses listed above. Some community colleges may still require a lab before the mandatory Summer 2015 switch. If your community college does, then it must be taken this final year.</i></p>	<p><b>Any of the courses listed in the Dark Blue UNC System column OR</b></p> <ul style="list-style-type: none"> <li>• 2407 – Probability &amp; Statistics (2014-15 is last year of availability)</li> <li>• 2406 – AMTEM-Mindset</li> <li>• Special Topics in Math (2013-14 was last year of availability)</li> </ul> <p><b>ABSS CTE Single Courses that equal 1 full math credit</b></p> <ul style="list-style-type: none"> <li>• AP Computer Science (2521)</li> <li>• Accounting I (BA10)</li> <li>• Accounting II (BA20)</li> <li>• Principles of Business and Finance (BF10)</li> <li>• Drafting I (IC61)</li> <li>• Drafting II Engineering (IV22) P</li> <li>• Drafting II Architectural (IC62) P</li> <li>• Carpentry I (IC21) P</li> <li>• PLTW Principles of Engineering (TP12) P</li> <li>• PLTW Introduction to Engineering Design (TP11)</li> <li>• PLTW Computer Integrated Manufacturing (TP22) P</li> <li>• Interior Design I (FI51)</li> <li>• Interior Design II (FI52) P</li> <li>• Culinary Arts and Hospitality II (FH22) P</li> <li>• Computer Programming I (BP10)</li> <li>• Computer Programming II (BP12) P</li> </ul> <p><b>Pairs of ABSS CTE Courses that equal 1 Math CREDIT</b></p> <ul style="list-style-type: none"> <li>• Personal Finance (BF05) AND Entrepreneurship I (ME11)</li> <li>• Introduction to Culinary Arts &amp; Hospitality (FH20) AND Culinary Arts &amp; Hospitality I (FH21)</li> <li>• Game Art and Design (TS31) P AND Advanced Game Art and Design (TS32)</li> <li>• Electrical Trades I (IC41) P AND Electrical Trades II (IC42)</li> <li>• Scientific and Technical Visualization I (TS21) AND Scientific and Technical Visualization II (TS22)</li> <li>• Carpentry II (IC22) P AND Carpentry III (IC23)</li> </ul> <p><i>** Not eligible for Multiple Measures entry with NC Community College System. Students using CTE courses to meet Math credit graduation requirements (Class of 2014 &amp; beyond) will be required to complete math placement testing prior to enrolling in community college math courses.</i></p>	<p><b>MATH I AND MATH II</b> <b>Plus two additional courses from choices below:</b></p> <ul style="list-style-type: none"> <li>• 2020 – Introductory Mathematics</li> <li>• 2050 – Foundations of Math I</li> <li>• 2051 – Foundations of Math II</li> <li>• 2052 – Foundations of Math III</li> <li>• 2040 – Alternate Mathematics I</li> <li>• 2041 – Alternate Mathematics II</li> <li>• 2065 – Probability &amp; Statistics</li> <li>• Special Topics in Math (2013-14 was last year of availability)</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• AP Computer Science (2521)</li> <li>• Accounting I (BA10)</li> <li>• Accounting II (BA20) P</li> <li>• Principles of Business and Finance (BF10)</li> <li>• Drafting I (IC61)</li> <li>• Drafting II Engineering (IV22) P</li> <li>• Drafting II Architectural (IC62) P</li> <li>• Carpentry I (IC21) P</li> <li>• PLTW Introduction to Engineering Design (TP11)</li> <li>• PLTW Computer Integrated Manufacturing (TP22) P</li> <li>• PLTW Principles of Engineering (TP12) P</li> <li>• Interior Design I (FI51)</li> <li>• Interior Design II (FI52) P</li> <li>• Culinary Arts and Hospitality II (FH22) P</li> <li>• Computer Programming I (BP10)</li> <li>• Computer Programming II (BP12) P</li> </ul> <p><i>Students are NOT required to complete math credits in this option in any particular order. Students may take CTE or other courses prior to or concurrently with Math I and/or Math II. Additionally, students may also complete the Substitution sequence with two core mathematics courses plus one additional math course from above (pink) and one CTE course OR a pair of CTE courses from previous column (yellow) (pairs of CTE courses = 1 math credit).</i></p>	<p>Students included in the category defined by NC General Statute § 115C-81(b) must complete four credits in mathematics. This legislation states that the State Board of Education shall not require Algebra I as a graduation standard for any student with an IEP [Individualized Education Plan] that: i) identifies the student as learning disabled in the area of mathematics and ii) states that this learning disability will prevent the student from mastering Algebra I.</p> <p>These students should construct a four-course mathematics sequence using any combination of the courses listed in the preceding columns. Each student's course selections should be guided by his or her post-secondary goals, as defined in his/her IEP.</p> <p style="text-align: center;"><b>Students Following the Occupational Course of Study</b></p> <ul style="list-style-type: none"> <li>• Introduction to Math I (9220B) AND Math I (9221B)</li> </ul> <p><b>AND ONE of the following courses:</b></p> <ul style="list-style-type: none"> <li>• Financial Management (9222B)</li> <li>• Alternate Math II (2041)</li> <li>• Personal Finance (BF05)</li> </ul> <p><i>Students who complete the sequence above should be classified as Occupational Course of Study (OCS). These students may also complete a CTE concentration.</i></p>