North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

According to the State Graduation Requirement Policy, students earn four mathematics credits which shall be either:

a. NC Math 1, 2, and 3 and a fourth mathematics course to be aligned with the student's post high school plans
b. In the rare instance a principal exempts a student from the Future-Ready Core mathematics sequence, except as limited by N.C.G.S. §115C-81(b), the student will be required to pass: NC Math 1 and Math 2 plus two additional courses identified on the NC DPI Math options chart. Note: Credit shall be awarded for Math I, II, III if taken prior to the 2016-17 school year.

The following charts are provided to identify the courses that are options to fulfill the mathematics graduation requirement and that align with the student's post high school plan.
The charts include options for students who seek:

- 1. Admission into a UNC System Institution
- 2. Admission into Community College or enter directly into a Career after High School
- 3. Principal Exemption from the Future Ready Core Graduation Requirements

Guidance to fulfill mathematics graduation requirements is also provided for students who are:

- Identified as Learning Disabled in Math
- Following the Occupational Course of Study

North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

1. Admission into a UNC System Institution *The following courses will fulfill the NC graduation requirements for mathematics and meet the UNC System Institution Minimum Course Requirements for admission. For admission into universities and colleges outside of the UNC System Institution, please check with that institution's admissions office for requirements and recommendations.*	**Students must earn credit for:** • **2109 – NC Math 1** • **2209 – NC Math 2** • **2309 – NC Math 3** And 1 credit from the following:

Active Courses - The following courses can be scheduled.

- If the course is marked "*New*", that course code is new and can be scheduled for the 2025-26 school year.
- If the course is marked "*Honors*", the course contains honors level material and receives a GPA bonus of 0.5.
- If the course is marked "CL+", the course is a transferable college-level course and receives a GPA bonus of 1.0.

NC SCOS – 4th Level Math Courses

- 2401 – Discrete Mathematics for Comp Sci
- 2403 – Precalculus *Honors*
- 2409 – NC Math 4

Advanced Placement Courses

- 2A00 – AP Calculus AB CL+
- 2A01 – AP Calculus BC CL+
- 2A03 – AP Statistics CL+
- 2A04 – AP Precalculus CL+

Community College Course

- 2C01 – MAT 143 – Quantitative Literacy
- 2C02 – MAT 152 – Statistical Methods I
- 2C03 – MAT 171 – Precalculus Algebra
- 2C04 – MAT 172 – Precalculus Trigonometry
- 2C05 – MAT 263 – Brief Calculus
- 2C06 – MAT 271 – Calculus I
- 2C07 – MAT 272 – Calculus II
- 2C11 – MAT 252 – Statistics II
- 2C12 – MAT 273 – Calculus III
- 2C13 – MAT 280 – Linear Algebra
- 2C14 – MAT 285 – Differential Equations
- 2C15 – MAT 141 – Mathematical Concepts I
- 2C16 – MAT 142 – Mathematical Concepts II
- 2C18 – MAT 175 – Precalculus
- 2C20 – MAT 167 – Discrete Math

International Baccalaureate Courses

- 2I06 – IB Analysis and Approaches SL CL+
- 2I07 – IB Analysis and Approaches HL CL+
- 2I08 – IB Applications & Interpretations SL CL+
- 2I09 – IB Applications & Interpretations HL CL+

Cambridge Courses

- 2V00 – CIE Mathematics AS CL+
- 2V01 – CIE Mathematics A CL+
- 2V02 – CIE Mathematics & Mechanics AS CL+
- 2V03 – CIE Mathematics & Mechanics A CL+
- 2V04 – CIE Mathematics & Probability/Statistics AS CL+
- 2V05 – CIE Mathematics & Probability/Statistics A CL+

Disabled Courses - The following courses **cannot** be scheduled for the 2025-26 school year.

- If credit was earned prior to the course being disabled, the course(s) will continue to earn one math credit. This also applies to the academic version of courses that are now only available in honors.

- 2400 – Advanced Functions and Modeling (AFM)
- 2402 – Integrated Math IV
- 2406 – AMTEM-Mindset
- 2I02 – IB Mathematical Studies SL
- 2I03 – IB Mathematics SL
- 2I04 – IB Mathematics HL
- 2I05 – IB Further Math HL

North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

2. Admission into Community College or enter directly into a Career after High School

The following courses will fulfill the NC graduation requirements for mathematics. Students may also earn a credit in a course listed on the Admission into a UNC Institution Chart.

Students must earn credit for:

- **2109 – NC Math 1**
- **2209 – NC Math 2**
- **2309 – NC Math 3**

And 1 credit from the following:

Active Courses - The following courses can be scheduled.

- If the course is marked "*New*", that course code is new and can be scheduled for the 2025-26 school year.
- If the course is marked "*Honors*", the course contains honors level material and receives a GPA bonus of 0.5.
- If the course is marked "CL+", the course is a transferable college-level course and receives a GPA bonus of 1.0.

Additional Mathematics Courses

- 2090 – Foundations of NC Math 1
- 2091 – Foundations of NC Math 2
- 2092 – Foundations of NC Math 3
- 2013 – CCRG Mathematics

Advanced Placement and International Baccalaureate Courses

- 0A02 – AP Computer Science Principles CL+
- 2A02 – AP Computer Science A CL+
- 2I00 – IB Computer Science SL CL+
- 2I01 – IB Computer Science HL CL+

CTE Single Courses that fulfill 1 of the 4 required mathematics credits for graduation

- AP44 – Horticulture II Landscape Construction *Honors*
- BA10 – Accounting I
- BA20 – Accounting II *Honors*
- BF10 – Principles of Business and Finance/Business Essentials
- CC11 – Microsoft Excel *Honors*
- CE10 – PLTW Introduction to Engineering Design *Honors*
- CE11 – PLTW Principles of Engineering CL+
- CE13 – PLTW Digital Electronics CL+
- CE14 – PLTW Civil Engineering and Architecture CL+
- CE15 – PLTW Aerospace Engineering *Honors*
- CE17 – PLTW Computer Integrated Manufacturing *Honors*
- CE18 – PLTW Environmental Sustainability *Honors*
- CL72 – Computer Programming I
- CL90 – Principles of Technology I
- CL91 – Principles of Technology II
- FA31 – Apparel & Textile Production I
- FA32 – Apparel & Textile Production II
- FH10 – Culinary Arts and Hospitality I
- IC21 – Carpentry I
- IC61 – Drafting I *Honors*
- IC62 – Drafting II Architectural *Honors*
- IM41 – Metals Manufacturing Technology I *Honors*
- IM42 – Metals Manufacturing Technology II *Honors*
- IV22 – Drafting II Engineering *Honors*

CTE Paired Courses that fulfill 1 of the 4 required mathematics credits for graduation

- CD30 – Game Art and Design **AND** CD31 – Advanced Game Art and Design
- FI21 – Interior Design Fundamentals **AND** FI23 Interior Design Technology *Honors*
- IC11 – Masonry I *Honors* **AND** IC12 – Masonry II *Honors*
- IC22 – Carpentry II *Honors* **AND** IC23 – Carpentry III *Honors*
- IC41 – Electrical Trades I *Honors* **AND** IC42 – Electrical Trades II *Honors*
- IK88 – Electronics I **AND** IK89 – Electronics II
- IM21 – Woodworking I **AND** IM22 – Woodworking II *Honors*

North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

Disabled Courses - The following courses **cannot** be scheduled for the 2025-26 school year.

- If credit was earned prior to the course being disabled, the course(s) will continue to earn one math credit. This also applies to the academic version of courses that are now only available in honors.

Disabled Single Course

- BP10 – Computer Programming I
- BP12 – Computer Programming II
- FA31 – Apparel & Textile Production I
- FH22 – Culinary Arts and Hospitality II
- FH72 – ProStart II
- FI51 – Interior Design I
- FI52 – Interior Design II
- TE21 – Principles of Technology I
- TE22 – Principles of Technology II
- TP11 – PLTW Introduction to Engineering Design
- TP12 – PLTW Principles of Engineering
- TP21 – PLTW Digital Electronics
- TP22 – PLTW Computer Integrated Manufacturing
- TP23 – PLTW Civil Engineering and Architecture
- TP25 – PLTW Aerospace Engineering
- TP27 – PLTW Environmental Sustainability
- TP31 – PLTW Engineering Design and Development

Disabled Paired Course

If highlighted in green, the course is active and can be paired with the credit earned in the listed disabled course to meet 1 of the 4 required mathematics credits for graduation.

- BP20 – SAS I **AND** BP22 – SAS II
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH21 – Culinary Arts & Hospitality I
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH71 – ProStart I
- IM31 – Electronics I **AND** IM32 – Electronics II
- TS21 – Scientific & Technical Visualization I **AND** TS22 – Scientific & Technical Visualization II
- TS31 – Game Art and Design **AND** TS32 – Advanced Game Art and Design

Partially Disabled Paired Courses

If highlighted in green, the course is active and can be paired with the credit earned in the listed disabled course to meet 1 of the 4 required mathematics credits for graduation.

- BF05 – Personal Finance **AND** ME11 – Entrepreneurship I
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH11 – Culinary Arts and Hospitality II Applications
- FH71 – ProStart I **AND** FH12 Culinary Arts and Hospitality II Internship

3. Principal Exemption from the Future Ready Core Graduation Requirements

The following courses will fulfill the NC graduation requirements for mathematics with a principal override. Students may also earn a credit in a course listed on the Admission into a UNC Institution Chart.

Students must earn credit for:

- **2109 – NC Math 1**
- **2209 – NC Math 2**

And 2 credits from the following:

Active Courses - The following courses can be scheduled.

- If the course is marked "*New*", that course code is new and can be scheduled for the 2025-26 school year.
- If the course is marked "*Honors*", the course contains honors level material and receives a GPA bonus of 0.5.
- If the course is marked "CL+", the course is a transferable college-level course and receives a GPA bonus of 1.0.

Additional Mathematics Courses

- 2020 – Introductory Mathematics
- 2040 – Alternate Mathematics I
- 2041 – Alternate Mathematics II
- 2090 – Foundations of NC Math 1
- 2091 – Foundations of NC Math 2
- 2092 – Foundations of NC Math 3
- 2013 – CCRG Mathematics

Advanced Placement and International Baccalaureate Courses

- 0A02 – AP Computer Science Principles CL+
- 2A02 – AP Computer Science A CL+
- 2I00 – IB Computer Science SL CL+
- 2I01 – IB Computer Science HL CL+

CTE Single Courses that fulfill 1 of the 4 required mathematics credits for graduation

- AP44 – Horticulture II Landscape Construction *Honors*
- BA10 – Accounting I
- BA20 – Accounting II *Honors*
- CC11 – Microsoft Excel *Honors*
- CE10 – PLTW Introduction to Engineering Design *Honors*
- CE11 – PLTW Principles of Engineering CL+
- CE13 – PLTW Digital Electronics CL+
- CE14 – PLTW Civil Engineering and Architecture CL+
- CE15 – PLTW Aerospace Engineering *Honors*
- CE17 – PLTW Computer Integrated Manufacturing *Honors*
- CE18 – PLTW Environmental Sustainability *Honors*
- FA31 – Apparel & Textile Production I
- FA32 – Apparel & Textile Production II
- FH10 – Culinary Arts and Hospitality I
- IC21 – Carpentry I
- IC61 – Drafting I *Honors*
- IC62 – Drafting II Architectural *Honors*
- IM41 – Metals Manufacturing Technology I *Honors*
- IM42 – Metals Manufacturing Technology II *Honors*
- IV22 – Drafting II Engineering *Honors*

CTE Paired Courses that fulfill 1 of the 4 required mathematics credits for graduation

- CD30 – Game Art and Design **AND** CD31 – Advanced Game Art and Design
- FI21 – Interior Design Fundamentals **AND** FI23 Interior Design Technology *Honors*
- IC11 – Masonry I *Honors* **AND** IC12 – Masonry II *Honors*
- IC22 – Carpentry II *Honors* **AND** IC23 – Carpentry III *Honors*
- IC41 – Electrical Trades I *Honors* **AND** IC42 – Electrical Trades II *Honors*
- IM21 – Woodworking I **AND** IM22 – Woodworking II *Honors*

North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

Disabled Courses - The following courses **cannot** be scheduled for the 2025-26 school year.

- If credit was earned prior to the course being disabled, the course(s) will continue to earn one math credit. This also applies to the academic version of courses that are now only available in honors.

Disabled Single Course

- BP10 – Computer Programming I
- BP12 – Computer Programming II
- FA31 – Apparel & Textile Production I
- FH22 – Culinary Arts and Hospitality II
- FH72 – ProStart II
- FI51 – Interior Design I
- FI52 – Interior Design II
- TE21 – Principles of Technology I
- TE22 – Principles of Technology II
- TP11 – PLTW Introduction to Engineering Design
- TP12 – PLTW Principles of Engineering
- TP21 – PLTW Digital Electronics
- TP22 – PLTW Computer Integrated Manufacturing
- TP23 – PLTW Civil Engineering and Architecture
- TP25 – PLTW Aerospace Engineering
- TP27 – PLTW Environmental Sustainability
- TP31 – PLTW Engineering Design and Development

Disabled Paired Course

If highlighted in green, the course is active and can be paired with the credit earned in the listed disabled course to meet 1 of the 4 required mathematics credits for graduation.

- BP20 – SAS I **AND** BP22 – SAS II
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH21 – Culinary Arts & Hospitality I
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH71 – ProStart I
- IM31 – Electronics I **AND** IM32 – Electronics II
- TS21 – Scientific & Technical Visualization I **AND** TS22 – Scientific & Technical Visualization II
- TS31 – Game Art and Design **AND** TS32 – Advanced Game Art and Design

Partially Disabled Paired Courses

If highlighted in green, the course is active and can be paired with the credit earned in the listed disabled course to meet 1 of the 4 required mathematics credits for graduation.

- BF05 – Personal Finance **AND** ME11 – Entrepreneurship I
- FH20 – Introduction to Culinary Arts & Hospitality **AND** FH11 – Culinary Arts and Hospitality II Applications
- FH71 – ProStart I **AND** FH12 Culinary Arts and Hospitality II Internship

North Carolina Mathematics Graduation Requirements

Options Charts for students who entered high school: ***prior to the 2020-21 school year***

Students identified as Learning Disabled in Math

General Statute 115C-12(9d) states:
"The State Board shall not adopt or enforce any rules that requires Algebra I* as a graduation standard or as a requirement for a high school diploma for any student whose individualized education program (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." As noted in General Statute 115C-12(9d), the individualized education program (IEP) must state that the specific learning disability (SLD) in the area of mathematics will prevent the student from mastering Algebra I (now interpreted as NC Math 1 per memo dated 12/16/13).

The IEP team decision regarding the application of this statute through documentation in the IEP could occur at different times during the academic career of a student with a SLD in the area of mathematics. For further information on the required considerations for application of this statute, please see the August 24, 2016 memo and worksheet (https://bit.ly/SLDMath1Exemption).

Note: The memo and worksheet refer to General Statute 115-81b. Recent legislation relocated the content of 115-81b to 115-12(9d) without changing the text of the statute. Please continue to use the memo and worksheet as intended for students with a specific learning disability in the area of mathematics.

Students included in the category defined by NC General Statute 115C-12(9d) must complete four credits in mathematics. These students must construct a four-course mathematics sequence using any combination of the courses listed in the preceding Options Charts. Each student's course selection should be guided by his or her post-secondary goals, as defined in his/her IEP.
For complete information on application of General Statute 115C-12(9d), refer to the Students with Specific Learning Disabilities and Mathematics Sequence Exemption in the Future-Ready Course of Study memo referenced above.

The following courses remain active to provide IEP teams with additional options for students who qualify for the exemption from the entire NC Math 1, 2, and 3 sequence.

- 2020 – Introductory Mathematics
- 2040 – Alternate Mathematics I
- 2041 – Alternate Mathematics II

These math courses do not have state standards. This allows teachers to create objectives to meet the needs of students enrolled in these courses based on the student's future plans stated in the student's IEP.

*Algebra I is now interpreted as NC Math I.

Students following the Occupational Course of Study

Students who follow this sequence should be classified as Occupational Course of Study.

To meet mathematics graduation requirements*, students must earn credit for:

- 9220B – Introduction to Mathematics
- 9225B – NC Math 1
- 9222B – Financial Management

* Students following the OCS pathway are not required to earn credit in NC Math 2 or NC Math 3.