

Mathematics (A.S. Degree) *

FALL 2023-SPRING 2024

Footnotes:

¹ Students with English Proficiency Index (EPI) of 0-49 enroll in corequisite course ENG 100. Students with EPI of 50-64 enroll in corequisite course ENG 110. Students with EPI of at least 65 (or other English proficiency qualification) enroll in ENG 111. Students with ESL need should take appropriate ESL course(s) (Sequence: ESL 01->02->03->09) before enrolling in ENG 110.

² Students are eligible to enroll in MTH 28 if they have successfully completed an elementary algebra math intervention at a CUNY college (e.g., Math Proficiency Workshop, CUNY Start Math, Math Start, or MTH 5), or if they are CUNY Math proficient AND have the appropriate math background in high school. See the Mathematics Course Placement page in the [College Catalog](#).

Students not eligible for MTH 28 or higher courses enroll in corequisite course MTH 28.5. However, note that students with Math Proficiency Index of 39 or lower are strongly encouraged to enroll in Math Start/CUNY Start.

³ If a student is required to take MTH 28/28.5 College Algebra and Elementary Trigonometry OR MTH 30 Pre-calculus, then the following applies:

If MTH 28/28.5 is required, then MTH 28/28.5 applies to Required Core B; MTH 30 applies to Scientific World/Restricted Electives; and MTH 31 will be required in the major courses. Free electives reduced to 3-4.

If student is exempted from MTH 28/28.5 but MTH 30 is required, then MTH 30 applies to Scientific World/Restricted Electives.

⁴ Lab Science I & II must form a sequence, e.g., BIO 11 & BIO 12.

⁵ See Degree map at: <http://www.bcc.cuny.edu/academics/academic-advising/degree-maps/> for semester-by-semester sequence.

⁶ CSI 35 has as prerequisite CSI 30, for which a student will need to use free elective credits.

Note:

- This program has received a waiver to require students to complete specific STEM/STEM Variant courses in Required Area B, Required Area C and Flexible Area E. If students transferring into this program complete different courses in these areas, they will be certified as having completed the Common Core requirements, but it may not be possible for them to finish their degree within the regular number (60) of credits.

*In order to apply for [graduation](#), students must complete all required courses with appropriate grades, complete two writing intensive courses, and have a minimum GPA of 2.0.

REQUIRED COMMON CORE

☐ A ☐ A	English Composition I ¹ & II ENG 100 ¹ OR ENG 110 ¹ OR ENG 111 ¹ ; AND ENG 112 OR ENG 113 OR ENG 114 OR ENG 115 OR ENG 116	6
☐ B	Mathematical and Quantitative Reasoning ² MTH 31 ³ Calculus & Analytic Geometry I	4
☐ C	Life and Physical Sciences ⁴ Lab Science I (BIO 11 or BIO 120 or CHM 11 or PHY 11 or PHY 31)	4
Subtotal:		14

FLEXIBLE COMMON CORE

Students can complete no more than two courses from any one discipline or interdisciplinary field.		
☐ A World Cultures and Global Issues		3
☐ B US Experience in its Diversity		3
☐ C Creative Expression		3
☐ D Individual and Society		3
☐ E Scientific World ² Lab Science II (BIO 12 or BIO 121 or CHM 12 or PHY 12 or PHY 32)		4
☐ Restricted Elective Select an additional course from Flexible Core Area A-E.		3
Subtotal:		19

MAJOR REQUIREMENTS⁵

☐ MTH 32	Analytic Geometry & Calculus II	4
☐ MTH 33	Analytic Geometry & Calculus III	4
☐ MTH 42	Linear Algebra	4
Select two courses from the following (MTH OR CSI):		
☐ MTH 34 Differential Equations & Selected Topics in Advanced Calculus		7-8
☐ MTH 35 Selected Topics in Advanced Calculus and Linear Algebra		
☐ MTH 44 Vector Analysis		
☐ MTH 46 Abstract Algebra		
☐ MTH 48 Advanced Calculus		
☐ CSI 35 ⁶ Discrete Mathematics II		3-8
☐ ELECTIVES	Free Electives	
Subtotal:		27
TOTAL:		60