

# Mathematics (A.S. Degree)

## FALL 2022-SPRING 2023

### REMEDIAL SEQUENCE (if required)

ESL 1 (8) ▶▶  ESL 2 (6) ▶▶  ESL 3 (6) ▶▶  ENG 9 (4)

ENG 1<sup>1</sup> (4) ▶▶  ENG 2<sup>1</sup> (4)

RDL 1<sup>1</sup> (4) ▶▶  RDL 2<sup>1</sup> (6)

MTH 1<sup>2</sup> (4) ▶▶  MTH 5<sup>2</sup> (6) ▶▶  MTH 6<sup>2</sup> (6)

CHM 2 (4)

### GRADUATION REQUIREMENTS

GPA ≥ 2.0  Writing Intensive 1  Writing Intensive 2

### FRESHMAN SEMINAR

FYS 11

<sup>1</sup>ENG 1/ENG 2 & RDL 1/RDL 2 are no longer offered. Students with ENG/RDL developmental needs will now enroll in corequisite courses, ENG 100 (If English Proficiency Index < 50), **OR** ENG 110 (If English Proficiency Index = 50-64).

<sup>2</sup>MTH 1/MTH 5/MTH 6 are no longer offered. CUNY Math Proficient STEM students or those with Math developmental need will now enroll in corequisite course MTH 28.5.

MTH 28 is now available for CUNY Math Proficient students who meet one of the following criteria:

Mathematics high school GPA of at least 70 and successful completion of a course beyond Algebra 1, **OR** New York State Regents Trigonometry Score of at least 65, **OR** New York State Regents Common Core Algebra 2 Score of at least 65.

<sup>3</sup>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.

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

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

<sup>6</sup>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.
- Students are encouraged to begin Transfer Planning early in their academic careers. Please visit the Transfer Planning web site for the timeline as well as information on articulation and transfer: [Transfer Services – Bronx Community College \(cuny.edu\)](http://www.bcc.cuny.edu/transfer-services/)

### REQUIRED COMMON CORE

<input type="checkbox"/> A <input type="checkbox"/> A	English Composition <sup>1</sup> I & II ENG 100 <b>OR</b> ENG 110 <b>OR</b> ENG 111; <b>AND</b> ENG 112 <b>OR</b> ENG 113 <b>OR</b> ENG 114 <b>OR</b> ENG 115 <b>OR</b> ENG 116	6
<input type="checkbox"/> B	Mathematical and Quantitative Reasoning <sup>3</sup> MTH 31 Calculus & Analytic Geometry I	4
<input type="checkbox"/> C	Life and Physical Sciences <sup>4</sup> Lab Science I BIO 11 <b>or</b> CHM 11 <b>or</b> PHY 11 <b>or</b> PHY 31	4
<b>Subtotal:</b>		<b>14</b>

### FLEXIBLE COMMON CORE (Course list at: <http://www.bcc.cuny.edu/pathways/?p=Flexible-Common-Core>)

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

### MAJOR REQUIREMENTS<sup>5</sup>

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