## Mathematics (A.S. Degree)

## FALL 2022-SPRING 2023

REMEDIAL SEQUENCE (if required)

| $\square$ ESL 1 (8) | - | $\square$ ESL 2 (6) " | $\square$ ESL 3 (6) | $\square$ ENG 9 (4) |
| :---: | :---: | :---: | :---: | :---: |
| $\square$ ENG ${ }^{11}$ (4) | - | $\square E N G 2{ }^{1}(4)$ |  |  |
| $\square \mathrm{RDL} 1^{11}$ (4) | - | $\square \mathrm{RDL} 2^{1}$ (6) |  |  |
| $\square$ MTH $1^{2}$ (4) |  | $\square$ MTH $5^{2}$ (6) | $\square \mathrm{MTH} 6^{2}$ (6) |  |MTH $1^{2}(4)$

$\square$ MTH $5^{2}$ (6) •
MTH $6^{2}$ (6)

## $\square$ CHM 2 (4)

## GRADUATION REQUIREMENTS

| $\square$ GPA $\geq 2.0$ | $\square$ Writing Intensive 1 | $\square$ Writing Intensive 2 |
| :--- | :--- | :--- | FRESHMAN SEMINAR

## $\square$ FYS 11

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),
${ }^{2}$ MTH 1/MTH 5/MTH 6 are no longer offered. They have been replaced by MTH 28/28.5. Students who 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) are eligible for MTH 28.
For MTH 28 enrollment, a new student must be CUNY Math Proficient, and will also have to 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 .
${ }^{3}$ 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 STEMISTEM 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)


## REQUIRED COMMON CORE

| $\begin{aligned} & \square \mathrm{A} \\ & \square \mathrm{~A} \end{aligned}$ | English Composition ${ }^{1}$ \& II <br> ENG 100 OR ENG 110 OR ENG 111; AND ENG 112 OR ENG 113 OR ENG 114 OR ENG 115 OR ENG 116 | 6 |
| :---: | :---: | :---: |
| $\square \mathrm{B}$ | Mathematical and Quantitative Reasoning ${ }^{3}$ MTH 31 Calculus \& Analytic Geometry I | 4 |
| $\square \mathrm{C}$ | Life and Physical Sciences ${ }^{4}$ <br> Lab Science I BIO 11 or CHM 11 or PHY 11 or PHY 31 | 4 |
|  | Subtotal: | 14 |

FLEXIBLE COMMON CORE (Course list at: http://www.bcc.cuny.edu/Pathways Flexible Common Core) Students can complete no more than two courses from any one discipline or interdisciplinary field.

| $\square$ A World Cultures and Global Issues | 3 |
| :--- | ---: |
| $\square$ B US Experience in its Diversity | 3 |
| $\square$ C Creative Expression | 3 |
| $\square$ D Individual and Society | 3 |
| $\square$ E Scientific World |  |
| Lab Science II BIO 12 or CHM 12 or PHY 12 or PHY 32 | 4 |
| $\square$Restricted Elective <br> Select an additional course from Flexible Core Area A-E. | 3 |
|  | Subtotal: |


| MAJOR REQUIREMENTS ${ }^{5}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| $\square$ MTH 32 | Analytic Geometry \& Calculus II |  | 4 |
| $\square$ MTH 33 | Analytic Geometry \& Calculus III |  | 4 |
| $\square$ MTH 42 | Linear Algebra |  | 4 |
|  |  |  |  |
| $\square$ MTH 34 Differential Equations \& Selected Topics in Advanced Calculus |  |  |  |
| $\square$ MTH 35 Selected Topics in Advanced Calculus and Linear Algebra |  |  |  |
| $\square$ MTH 44 Vector Analysis |  |  |  |
| $\square$ MTH 46 Abstract Algebra |  |  |  |
| $\square$ MTH 48 Advanced Calculus |  |  |  |
| $\square$ CSI $35^{6}$ Discrete Mathematics II |  |  | 7-8 |
| $\square$ ELECTIVES | Free Electives |  | 3-8 |
|  |  | Subtotal: | 27 |
|  |  | TOTAL: | 60 |

