B.S. in Computer Science-Mathematics
Degree Requirements (120 credits) (Revised Fall '24)

NOTE: This is a summary
PLEASE SEE THE CATALOG FOR FULL DETAILS USING THE FOLLOWING LINK
CSCMTH-BS Program | College of Staten Island Catalog (cuny.edu)
Also consult DEGREE WORKS https://degreeworks.cuny.edu for individualized programs for students
COMPLETE ONE OF THE FOLLOWING COURSES

- SPD 101 - Issues in College Life **OR** SKO 100 - Freshman Orientation
- Attend four CLUE Events

General Education Requirements (42 credits)	**Credits**
Required Common Core	12
Flexible Common Core	18
College Options	12
	Total 42 credits

See Attachment for Recommended and suggested courses in this category.

Pre- Computer Science Sequence (4 credits)

CSC 126 Introduction to Computer Science 4 credits

Note: A grade of C or above in CSC 126 is required to be admitted to Computer Science- Mathematics Baccalaureate program. Students will be allowed to repeat the course if necessary.

Pre-Major Requirements (26-29credits)[1] (should be completed prior to their junior year.)

MTH 229	Calculus Computer Laboratory	1
MTH 231	Analytic Geometry and Calculus I	3
MTH 232	Analytic Geometry and Calculus II	3
MTH 233	Analytic Geometry and Calculus III	3
CSC/MTH 228	Discrete Mathematical Structure	4
		Total 14 credits

OR

MTH 229	Calculus Computer Laboratory	1
MTH 230	Calculus I with Pre-Calculus	6
MTH 232	Analytic Geometry and Calculus II	3
MTH 233	Analytic Geometry and Calculus III	3
CSC/MTH 228	Discrete Mathematical Structure	4
		Total 17 credits

AND

CSC 211	Intermediate Programming	4
CSC 220	Computers & Programming	3
CSC 221	Networking & Security	3
		Total 10 credits

AND

[1] Courses used to fulfill premajor requirement can be used to fulfill gen-ed requirement.

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Two courses with laboratories chosen from one of the following sequences:	Total 8 credits	
BIO 170-171, 180-181	General Biology I and II with laboratories	8
CHM 141-121,142-127	General Chemistry I and II with laboratories	8
PHY 120-121, 160-161	General Physics I and II with laboratories	8
GEO 115-116, 102-103	Physical and Historical Geology with laboratories	8
GEO 115-116, ESC110-11 laboratories	Physical Geology & Meteorology and Climatology with	8
AST 120-160	Space Science I and II with laboratories	8

Major Requirements (47 credits)

Computer Science: **(23 credits)**

CSC 326	Information Structures	4
CSC 330	Systems programming; Concepts of Software Design	3
CSC 346	Switching and Automata Theory	3
CSC 347	Digital System Laboratory	1
CSC 382	Analysis of Algorithms	4
Any two 400 level CS advanced electives		**8**
	Total	23 credits

Mathematics: **(24 credits)**

MTH 301	Introduction to Mathematical Proofs	4
MTH 311	Probability Theory and an Introduction to Mathematical Statistics	4
MTH 335	Numerical Analysis	4
MTH 338	Linear Algebra	4
Any two of the following Mathematics Courses		**8**
	Total	24 credits

MTH 330	Applied Mathematical Analysis I	4
MTH 337	Applied Combinatorics & Graph Theory	4
MTH 339	Applied Algebra	4
MTH 341	Advanced Calculus	4
MTH 347	Number Theory	4
MTH 349	Cryptology	4
MTH 350	Mathematical Logic	4
MTH 370	Operations Research	4
MTH 410	Mathematical Statistics I	4

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Electives (0-As many needed for 120 credits) **See the 8 semester Sample Schedule**

Total (120 credits)

To graduate with Honors in the major, students must have at least a 3.5 GPA in the courses under the major requirement category and must complete an Honors thesis or project.

Note: 1. GPA Requirement - In order to graduate, you will need an overall GPA of 2.0 as well as a GPA of 2.0 in the courses under major requirement category.

2. Residency Requirement – To obtain a B.S. degree from CSI, students must earn at least 30 credits at CSI and must also earn at least half (50%) of the credits in the major requirement category at CSI. For details refer to the catalog .

3. Liberal Arts and Sciences Requirement - For a B.S. degree NY state requires that one half of credits must be in Liberal Arts and Sciences. For details refer to the catalog .