B.S. in Computer Science-Mathematics
Degree Requirements (120 credits) (Revised Fall '19)

For Students matriculating on or after Fall 2013

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

See Attachment for Recommended and suggested courses in this category.

Pre- Computer Science Sequence (4 credits)

CSC 126	Introduction to Computer Science	4

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 (26-29 credits)[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
		Total 10 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
		Total 13 credits

AND

CSC 220	Computers & Programming	4
CSC 211	Intermediate Programming	4
		Total 8 credits

AND

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	
CHM 141-121,142-127	General Chemistry I and II with laboratories	
PHY 120-121, 160-161	General Physics I and II with laboratories	
GEO 115-116, 102-103	Physical and Historical Geology with laboratories	
AST 120-160	Space Science I and II with laboratories	

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

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Major Requirements (52 credits) **Credits**

MTH/CSC 228 Discrete Mathematical Structures 4

Computer Science: (24 credits)

CSC 326	Information Structures	4
CSC 330	Systems programming; Concepts of Software Design	4
CSC 346	Switching and Automata Theory	4
CSC 382	Analysis of Algorithms	4

Any two 400 level CS advanced electives 8

Total 24 credits

Mathematics: (24 credits)

MTH 311	Probability Theory and an Introduction to Mathematical Statistics	4
MTH 335	Numerical Analysis	4
MTH 338	Linear Algebra	4
MTH 339	Applied 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 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

Electives (0-10 credits) **See the 8 semester Sample Schedule**

Total (120 credits)

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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 .