

Computer Science BS

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

78/79 Major Credits

0 Elective Credits

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2023. Our 4-year academic plans are illustrative examples of integrated degree requirements and course sequencing for each of the College's programs of study which are designed to ensure degree completion in a timely manner. Students are advised to meet with professional and faculty advisors to tailor their degree maps to their individual interests (academic and career goals), as well as other considerations including course offerings and the incorporation of winter and summer sessions. Course pre-requisite/s and co-requisite/s are strictly enforced, as are entrance and maintenance criteria (if applicable) for the successful completion of the degree.

Computer Science BS

Freshman

FALL

English Composition I (EC1)	3 credits
World Cultures & Global Issues (WCGI)	3 credits
U.S Experience in its Diversity (USED)	3 credits
Creative Expression (CE)	3 credits
MATH 151¥ (MQR)	4 credits
Calculus I	

Fall total credits 16 credits

SPRING

English Composition II (EC2)	3 credits
Individual and Society (IS)	3 credits
An Additional Flexible Core	3 credits
College Option Literature (LIT+W)	3 credits
With Writing Intensive Unit *	
Math 152¥	4 credits
Calculus II	

Spring total credits 16 credits

Sophomore

FALL

CSCI 111	3 credits
Introduction to Algorithmic Problem Solving	
MATH 120B	3 credits
Discrete Mathematics	
An Additional College Core	3 credits
Scientific World (SW)	3 credits
College Option Language (LANG)	4 credits

Fall total credits 16 credits

SPRING

CSCI 211	3 credits
OOP in C++	
CSCI 212	3 credits
OOP in Java	
CSCI 220	3 credits
Discrete Structures	
CSCI 240	3 credits
Computer Organization and Assembly Language	
One Writing Intensive Unit (W)	3 credits

Spring total credits 15 credits

*If a Literature course is taken with a W, it will count towards Literature and one Writing Intensive Unit.

General Education requirements may be taken in any order if the pre-requisite requirement(s) is/are satisfied

¥ Students who fail or withdraw from this course multiple times may be prohibited from majoring in the sciences or mathematics; see your department for questions.

ß *The Computer Science Department will substitute CSCI 120 (taken at QC or transferred) for MATH 120. Contact the Computer Science department for a substitution in Degree Works and questions. Not open to students who are taking or who have received credit for CSCI 120 or MATH 220.

Computer Science BS

Junior

FALL

CSCI 313 Data Structures	3 credits
CSCI 320 Theory of Computation	3 credits
CSCI 343 Computer Architecture	3 credits
MATH 241 Probability & Statistics	3 credits
MATH 231¥ or 237 Linear Algebra	4 credits

Fall total credits 16 credits

SPRING

CSCI 323 Design & Analysis of Algorithms	3 credits
CSCI 331 Database Systems	3 credits
CSCI 340 Operating Systems	3 credits
CSCI 316 Principles of Programming Languages	3 credits
First Computer Science Elective**	3 credits

Spring total credits 15 credits

Senior

FALL

Second Computer Science Elective**	3 credits
CSCI 370 Software Engineering	3 credits
Third Computer Science Elective**	3 credits
Fourth Computer Science Elective**	3 credits
College Option Science (SCI)	3 credits

Fall total credits 15 credits

SPRING

Fifth Computer Science Elective**	3 credits
Sixth Computer Science Elective**	3 credits
Seventh Computer Science Elective**	3 credits
Life & Physical Science (LPS)	4 credits
General elective	3 credits

Spring total credits 16 credits

** 21 credits of computer science courses numbered CSCI 300 –396. One course from the following list may be used unless it has been applied towards the fulfillment of the math or science requirements for the major: BIOL 330; MATH 202, 223, 224, 232, 242, 245, 247, 248, 317, 301 (old class 333), 337, 341, 342, 609, 613, 619, 621, 623, 624, 625, 626, 633, 634, 635, or 636; PHYS 225, 227, 265, or 311.

No more than 3 credits of CSCI 390 through 395 may be used as part of the major without the approval of the Honors and Awards Committee.

***General Electives: Students may complete general electives by taking courses in (most) department/s or programs they choose; however, depending on the course/program, students may need department permission and/or prerequisite course/s. Electives may be used to supplement the chosen major (an English major may want to take a course in French or Italian literature) or to fulfill interest in a different area (a Music major may be interested in the physics of sound). Students are encouraged to use available electives to complete a dual major, minor, pre-requisites for graduate or professional school, or complete and internship, experiential learning and/or study abroad. Students are encouraged to use their available general electives wisely and focus on coursework that will assist them personally, academically and professionally.