Computer Science BA

FOUR-YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

66\67 Major Credits

12/11 Elective Credits

This 4-year academic plan is for freshmen entering Queens College in Fall 2024.

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.

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Freshman

FALL		**SPRING**	
English Composition I (EC1)	3 credits	English Composition II (EC2)	3 credits
World Cultures & Global Issues (WCGI)	3 credits	Individual and Society (IS)	3 credits
U.S Experience in its Diversity (USED)	3 credits	An Additional Flexible Core	3 credits
Creative Expression (CE)	3 credits	College Option Literature (LIT+W)	3 credits
MATH 151¥ (MQR)	4 credits	With Writing Intensive Unit*	
Calculus I		MATH 152¥	4 credits
		Calculus II	
Fall total credits	**16 credits**	**Spring total credits**	**16 credits**

Sophomore

FALL		**SPRING**	
CSCI 111	3 credits	CSCI 211	3 credits
Introduction to Algorithmic Problem Solving		OOP in C++	
MATH 120ß	3 credits	CSCI 212	3 credits
Discrete Mathematics		OOP in Java	
Scientific World (SW)	3 credits	CSCI 220	3 credits
An Additional College Core	3 credits	Discrete Structures	
College Option Language (LANG)	4 credits	CSCI 240	3 credits
		Computer Organization and Assembly Language	
Fall total credits	**16 credits**	One Writing Intensive Unit (W)	3 credits
		Spring total credits	**15 credits**

Students may either focus on Gen Ed requirements during freshman year, or start CSCI-BA sooner by spreading courses for the major over 4 years in accordance to the prerequisite structure depicted in http://www.cs.qc.edu/undergrad/BA.pdf

*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.

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Junior

FALL

CSCI 313	3 credits
Data Structures	
CSCI 320	3 credits
Theory of Computation	
CSCI 343	3 credits
Computer Architecture	
MATH 241	3 credits
Probability & Statistics	
MATH 231¥ or 237	4 credits
Linear Algebra	
Fall total credits	**16 credits**

SPRING

CSCI 323	3 credits
Design & Analysis of Algorithms	
CSCI 331	3 credits
Database Systems	
CSCI 340	3 credits
Operating Systems	
CSCI 316	3 credits
Principles of Programming Languages	
First Computer Science Elective**	3 credits
Spring total credits	**15 credits**

Senior

FALL

Second Computer Science Elective**	3 credits
CSCI 370	3 credits
Software Engineering	
Third Computer Science Elective**	3 credits
Life & Physical Science (LPS)	4 credits
General electives***	2 credits
Fall total credits	**15 credits**

SPRING

College Option Science (SCI)	3 credits
General electives***	12 credits
Spring total credits	**15 credits**

** 9 credits of computer science courses numbered CSCI 300–396. One course from the following list may be used unless it has been applied toward fulfillment of the math requirements for the major: BIOL 330; MATH 202, 223, 224, 232, 237, 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 department's 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.

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