

QUEENS COLLEGE

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 2022. 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

| | |
|--|-----------|
| 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

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|---|-----------|
| CSCI 111 | 3 credits |
| Introduction to Algorithmic Problem Solving | |
| MATH 120ß | 3 credits |
| Discrete Mathematics | |
| Scientific World (SW) | 3 credits |
| An Additional College Core | 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**

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.



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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, 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.

