#### **QUEENS COLLEGE**

## Applied Mathematics BA Biology/Chemistry Track

FOUR YEAR ACADEMIC PLAN

Required Core Credits

18 Flexible Core Credits

12 College Option Credits

72 Major Credits

6 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		SPRING	
English Composition I (EC1)	3 credits	English Composition II (EC2)	3 credits
MATH 122 (MQR)	4 credits	MATH 151¥€ (or equivalent)	4 credits
Pre-calculus		Calculus I	
CHEM 1134&1131 (LPS)	5 credits	CHEM 1144&1141 (SW)	5 credits
General Chemistry I		General Chemistry II	
World Cultures & Global Issues (WCGI)	3 credits	US Experience in its diversity (USED)	3 credits
Fall total credits	15 credits	Spring total credits	15 credits

## Sophomore

**Fall total credits** 

**FALL** 

MATH 152¥€ (or equivalent)	4 credits	MATH 201€	4 credits
Calculus II		Multi-Variable Calculus	
BIOL 105 (SW)	4 credits	BIOL 106 (SCI)	4 credits
General Biology I		General Biology II	
MATH 241	3 credits	CSCI III (or MATH 250)	3 credits
Probability & Statistics		Intro to Algorithmic Problem Solving	
Creative expression (CE)	3 credits	Individual and Society (IS)	3 credits
General electives	1 credit	General electives	1 credit

**SPRING** 

**Spring total credits** 

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

15 credits

- ¥ The following sequences of classes are considered the equivalents of MATH 151 and MATH 152: MATH 141, 142, and 143; MATH 131, 132, and 143; MATH 151, 142, and 143, MATH 157 and 158.
- € Students who are majoring in mathematics may not enroll in MATH 115, 122, 131, 132, 141, 142, 143, 151, 152, 201, or 231 if they have withdrawn from or received a failing grade (F, FIN, W, WD, WN, WU) in that same course three times. Students may not declare a major in mathematics if they have withdrawn from or received a failing grade three times in any one of MATH 115, 122, 131, 132, 141, 142, 143, 151, 152, 201, or 231.





15 credits

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## **Junior**

FALL		SPRING	
MATH 202 (or 207)	4 credits	Math Elective®	3 credits
Advanced Calculus		(in consultation with Math Dept. advisor)	
MATH 231	4 credits	Math Elective®	3 credits
Linear Algebra		(in consultation with Math Dept. advisor)	
College Option Literature (LIT+W)	3 credits	One Writing Intensive Unit (W)	3 credits
With Writing Intensive Unit*		An Additional College Core	3 credits
Foreign Language (LANG)	4 credits	Second major, minor, or general electives	3 credits
Fall total credits	15 credits	Spring total credits	15 credits

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## Senior

FALL		SPRING	
Math Elective®	3 credits	Math Elective®	3 credits
(in consultation with Math Dept. advisor)		(in consultation with Math Dept. advisor)	
Math Elective®	3 credits	Math Elective®	3 credits
(in consultation with Math Dept. advisor)		(in consultation with Math Dept. advisor)	
Second major, minor, or general electives	9 credits	Second major, minor, or general electives	9 credits
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Fall total credits	15 credits	Spring total credits	15 credits

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

® Six elective MATH courses at the 200-, 300-, 600-, or 700-level (not including MATH 205, 218, 271, 272, or 385W).





<sup>■</sup> At least eighteen credits of the MATH required and elective courses must be taken at Queens College.

<sup>\*\*</sup>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.