### **QUEENS COLLEGE**

# Mathematics Secondary Education 7-12 BA

FOUR YEAR ACADEMIC PLAN

Required Core Credits

Flexible Core Credits

College Option Credits

College Option Credits

Hereits Core Credits

Elective Credits

This 4-year academic plan is for freshmen entering Queens College in Fall 2021. 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** 

World Cultures & Global Issues (WCGI) US Experience in Its Diversity (USED)	3 credits 3 credits	MATH 151* (MQR) Calculus I	4 credits
Creative Expression (CE)	3	Individual and Society (IS)	3 credits
credits		Scientific World (SW)	3 credits
Foreign Language (LANG)	4 credits	An Additional Flexible Core	3 credits
Fall total credits	16 credits	Spring total credits	I6 credits

# Sophomore

# **FALL**

		MATH 241	3 credits
MATH I52*	4 credits	Probability & Mathematical Statistics	
Calculus II		MATH 201	4 credits
MATH 220	3 credits	Multivariate Calculus	
Discrete Mathematics		MATH 242	3 credits
SEYS 201W (W)	3 credits	Methods of Mathematical Statistics	0.02.00
Historical, Social, and Philosophical Found of Edu.		CSCI III	3 credits
College Option Literature (LIT)	3 credits	Intro to Algorithmic Problem Solving	0.02.00
An Additional College Core	3 credits	SEYS 221	3 credits
		Develop. & Learning in Mid. Childhood & A	Adole.
Fall total credits	16 credits		

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

#### \*\*\*Students must take either three or four additional courses as follows:

Three additional courses chosen from Lists X and Y below, of which two must be from list X and one must be

Four additional courses chosen from Lists X and Y below, of which one must be from list X and three must be from list Y. (Highlighted courses are strongly recommended)

**List X:** Math 310, 317(or 617), 609,612,618,619,626,634

List Y: Math 202, 223, 232, 242, 245, 247, 248,250, 320 and all 500 and 600-level courses not already used to satisfy the above requirements.

#### **SPRING**

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<sup>\*</sup> MATH 151 & 152 OR MATH 141, 142, & 143

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# Junior

FALL		SPRING	
MATH 231 or 237 (select one)	4 credits		
Linear Algebra		SEYS 340	3 credits
MATH 505	3 credits	Lang. Literacy & Cult. in Education	
Problem Solving		MATH 385W (W)	4 credits
Either one CSCI or one PHYS course from:	3/5 credits	Mathematic Found. of the Secondary	
CSCI 112, PHYS 1214+1211**, PHYS 1454+1451**		School Curriculum	
ECPSE 350	3 credits	First additional Math course***	3 credits
Foundation of Special Education		Second additional Math course***	3 credits
College Option Science (SCI)	3 credits	MATH 333 or 613	3 credits
		Abstract Algebra	
Fall total credits	16/18	C	
credits		Spring total credits	16 credits
Caustan			

# Senior

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FALL		SPRING	
MATH 518	3 credits	MATH 618	3 credits
College Geometry		Foundation of Geometry	
SEYS 350	3 credits	SEYS 371.4	3 credits
Cognition, Tech., and Instruct. for Diverse Learners		Students Teaching Mathematics in	
SEYS 361	3 credits	Middle or High School	
Methods of Teaching Mathematics in		SEYS 381W (W)	3 credits
& High School		Curriculum & Assessment in Teach. Math	
SEYS 371.2	3 credits	Life & Physical Science (LPS) (if needed) 4	credits
Initial Clinical Experience in Mathematics		Fourth additional Math course (if needed)** 3 credits	
Third additional Math course***	3 credits		
		Spring total credits	16 credits
Fall total credits	15		

■ At least fifteen credits of these required and elective courses must be taken at Queens College.

\*\* PHYS 1214+1211 & PHYS 1454+1451 fulfill the General Education, Required Core, Life & Physical Science (LPS) requirement or the College Option Science (SCI) requirement.

\*\*\*\*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.



