

**QUEENS COLLEGE**

# Mathematics Secondary Education 7-12 BA

FOUR YEAR ACADEMIC PLAN

12

Required Core Credits

18

Flexible Core Credits

12

College Option Credits

45+27<sub>(SEYS)</sub> Major Credits

6

Elective Credits

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120

Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2020 plan their academic career and ensure that they complete all requirements for graduation in a timely fashion. All other students should consult their academic and department advisors to chart their own 4-year academic plans. Students should note that course pre-requisite/s and co-requisite/s are strictly enforced and they should regularly meet with their department advisors to identify their specific major/minor requirements and entrance and maintenance criteria (if applicable) for successful completion of their degree.



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### Freshman

#### FALL

English Composition I (EC1)	3 credits
World Cultures & Global Issues (WCGI)	3 credits
US Experience in Its Diversity (USED)	3 credits
Creative Expression (CE)	3 credits
Foreign Language (LANG)	4 credits

**Fall Total Credits** **16 credits**

#### SPRING

English Composition II (EC2)	3 credits
MATH 151* (MQR)	4 credits
Calculus I	
Individual and Society (IS)	3 credits
Scientific World (SW)	3 credits
An Additional Flexible Core	3 credits

**Spring Total Credits** **16 credits**

### Sophomore

#### FALL

MATH 152*	4 credits
Calculus II	
MATH 220	3 credits
Discrete Mathematics	
SEYS 201W (W)	3 credits
Historical, Social, and Philosophical Found of Edu.	
College Option Literature (LIT)	3 credits
An Additional College Core	3 credits

**Fall Total Credits** **16 credits**

#### SPRING

MATH 241 or 611 (select one)	3 credits
Probability & Mathematical Statistics	
MATH 201	4 credits
Multivariate Calculus	
MATH 242	3 credits
Methods of Mathematical Statistics	
CSCI 111	3 credits
Intro to Algorithmic Problem Solving	
SEYS 221	3 credits
Develop. & Learning in Mid. Childhood & Adole.	

**Spring Total Credits** **16 credits**

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

\* MATH 151 & 152 OR MATH 141, 142, & 143

\*\*\*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 from list Y.

OR

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, 609, 612, 618, 619, 626, 634

List Y: Math 202, 213W, 223, 232, 242, 245, 247, 248, 320, 503, 524  
And all 500 and 600-level courses not listed.



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### Junior

#### FALL

MATH 231 or 237 (select one)	4 credits
Linear Algebra	
MATH 505	3 credits
Problem Solving	
Either one CSCI or one PHYS course from: 3/5 credits	
CSCI 212, PHYS 1214+1211**, PHYS 1454+1451**	
ECPSE 350	3 credits
Foundation of Special Education	
College Option Science (SCI)	3 credits

**Fall Total Credits**

**16/18 credits**

#### SPRING

SEYS 340	3 credits
Lang. Literacy & Cult. in Education	
MATH 385W (W)	4 credits
Mathematic Found. of the Secondary School Curriculum	
First additional Math course***	3 credits
Second additional Math course***	3 credits
MATH 333 or 613	3 credits
Abstract Algebra	

**Spring total credits**

**16 credits**

### Senior

#### FALL

MATH 518	3 credits
College Geometry	
SEYS 350	3 credits
Cognition, Tech., and Instruct. for Diverse Learners	
SEYS 361	3 credits
Methods of Teaching Mathematics in & High School	
SEYS 371.2	3 credits
Initial Clinical Experience in Mathematics	
Third additional Math course***	3 credits

**Fall Total Credits**

**15 credits**

#### SPRING

MATH 618	3 credits
Foundation of Geometry	
SEYS 371.4	3 credits
Students Teaching Mathematics in Middle or High School	
SEYS 381W (W)	3 credits
Curriculum & Assessment in Teach. Math	
Life & Physical Science (LPS) (if needed)	4 credits
Fourth additional Math course (if needed)***	3 credits

**Spring Total Credits**

**16 credits**

At least eighteen credits of the MATH 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.

