Mathematics Secondary Education 7-12 BA

FOUR YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

53+27 (SEYS) Major Credits

0 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.

QUEENS COLLEGE

CUNY The City University of New York

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FOUR YEAR ACADEMIC PLAN

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) Calculus I	4 credits
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*€ Calculus II	4 credits
MATH 220 Discrete Mathematics	3 credits
SEYS 201W (W) Historical, Social, and Philosophical Found of Edu.	3 credits
College Option Literature (LIT)	3 credits
An Additional College Core	3 credits
Fall total credits	**16 credits**

SPRING

MATH 241 Probability & Mathematical Statistics	3 credits
MATH 201€ Multivariate Calculus Methods of Mathematical Statistics	4 credits
CSCI 111 or 112 Intro to Algorithmic Problem Solving	3 credits
SEYS 221 Develop. & Learning in Mid. Childhood & Adole.	3 credits
Electives	3 credits
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 who are majoring in mathematics may not enroll in MATH 115, 122, 131, 132, 141, 142, 143, 151, 152, 201, or 231if they have withdrawn from or received a failing grade (F, FIN, W, WD, WN, WU) in that same course three times.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.

*****Three or four additional courses as follows:**
Three additional courses chosen from Lists X and Y below, of which at least two must be from List X, or four additional courses chosen from Lists X and Y below, of which at least one must be from List X. At least fifteen credits of these required and elective courses must be taken at Queens College.
List X: MATH 305 (or 605), 310, 317 (or 617), 318 (or 618), 336 (or 636), 609, and 626. MATH 310 is recommended for those who expect to teach calculus. Also especially recommended are MATH 305, 317, and 318 or their graduate equivalents.
List Y: MATH 202, 223, 232, 242, 245, 247, 248, 250, 255, 320 and all 500- and 600-level courses not already used to satisfy the above requirements. MATH 202 is usually required for entry into master's degree programs in mathematics.

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FOUR YEAR ACADEMIC PLAN

Junior

FALL

MATH 231 or 237 (select one)	4 credits
Linear Algebra	
MATH 205 (or 505)	3 credits
Problem Solving	
Either one CSCI or one PHYS course from:	3/5 credits
One of CSCI 211, CSCI 212, PHYS 121**, or PHYS 145**	
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 301 or 601	4 credits
Abstract Algebra I	

Spring total credits   **17 credits**

Senior

FALL

MATH 218 (or 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

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
Electives	3 credits

Spring total credits   **16 credits**

■ 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.

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