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.
# Mathematics Secondary Education 7-12 BA

## Four Year Academic Plan

### Freshman

<table>
<thead>
<tr>
<th>FALL</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I (EC1)</td>
<td>English Composition II (EC2)</td>
</tr>
<tr>
<td>World Cultures &amp; Global Issues (WCGI)</td>
<td>MATH 151*€ (MQR)</td>
</tr>
<tr>
<td>US Experience in Its Diversity (USED)</td>
<td>Calculus I</td>
</tr>
<tr>
<td>Creative Expression (CE)</td>
<td>Individual and Society (IS)</td>
</tr>
<tr>
<td>Foreign Language (LANG)</td>
<td>Scientific World (SW)</td>
</tr>
<tr>
<td></td>
<td>An Additional Flexible Core</td>
</tr>
<tr>
<td><strong>Fall total credits</strong></td>
<td><strong>Spring total credits</strong></td>
</tr>
<tr>
<td>16 credits</td>
<td>16 credits</td>
</tr>
</tbody>
</table>

### Sophomore

<table>
<thead>
<tr>
<th>FALL</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 152*€</td>
<td>MATH 241</td>
</tr>
<tr>
<td>Calculus II</td>
<td>Probability &amp; Mathematical Statistics</td>
</tr>
<tr>
<td>MATH 220</td>
<td>MATH 201€</td>
</tr>
<tr>
<td>Discrete Mathematics</td>
<td>Multivariate Calculus</td>
</tr>
<tr>
<td>SEYS 201W (W)</td>
<td>Methods of Mathematical Statistics</td>
</tr>
<tr>
<td>Historical, Social, and Philosophical Found of Edu.</td>
<td>CSCI 111 or 112</td>
</tr>
<tr>
<td>College Option Literature (LIT)</td>
<td>Intro to Algorithmic Problem Solving</td>
</tr>
<tr>
<td>An Additional College Core</td>
<td>SEYS 221</td>
</tr>
<tr>
<td></td>
<td>Develop. &amp; Learning in Mid. Childhood &amp; Adole.</td>
</tr>
<tr>
<td><strong>Fall total credits</strong></td>
<td><strong>Spring total credits</strong></td>
</tr>
<tr>
<td>16 credits</td>
<td>16 credits</td>
</tr>
</tbody>
</table>

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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 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.

***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.
QUEENS COLLEGE

Mathematics Secondary Education 7-12 BA
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.