# Queens College <br> Post-Baccalaureate Initial Certificate Program Mathematics 

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This program consists of 21 credits in education that includes fieldwork and student teaching, as well as 3 credits in special education. A minimum overall GPA of 3.0 and mathematics GPA of 3.0 are required to enter and remain in the program. (To enter the program candidates must have completed an undergraduate program in which they majored in mathematics or have taken a minimum of 21 credits in college-level mathematics, including multivariable calculus, linear algebra and probability and statistics. They must also have completed the GRE exam.)

Coursework for Initial Certificate Program

| Course | Title | Credits | Comments | Semester to take |
| :---: | :---: | :---: | :---: | :---: |
| SEYS 536 | Educational Foundations | 3 | 30 hours fieldwork | Spring |
| SEYS 700 | Language, Literacy, and Culture in Education | 3 | 30 hours fieldwork <br> Pre-req. or co-req. SEYS $536$ | Spring |
| $\begin{aligned} & \hline \text { ECPSE } \\ & 550 \end{aligned}$ | Foundations of Special Education | 3 | 15 hours fieldwork | Spring |
| $\begin{aligned} & \text { SEYS } \\ & 552^{*} \end{aligned}$ | Educational Psychology | 3 | Prereqs. 536 \& 700 Co-req. SEYS 571.2 \& 561 | Fall |
| $\begin{aligned} & \hline \text { SEYS } \\ & 571.2^{* *} \\ & \text { [course } \\ & \text { number } \\ & \text { may } \\ & \text { change] } \end{aligned}$ | Initial Clinical Experience in Mathematics | 3 | 100 hours of clinical practice (4 days per week) in middle or high school Prereqs. 536 \& 700 | Fall |
| $\begin{aligned} & \text { SEYS } \\ & 561 * * * \end{aligned}$ | Seminar in the Teaching of Mathematics in Middle and High School | 3 | 25 hours fieldwork in middle or high School; <br> Prereqs. 536 \& 700 <br> Math 385W <br> Co-req. SEYS 552 | Fall |
| SEYS <br> 571.4**** <br> [course <br> number <br> may <br> change] | Student Teaching in Mathematics for Middle and High School | 3 | 15 weeks, 5 days per week, 6 periods per day, in high or middle school; Prereqs. SEYS 571.2, 561 Co-req. SEYS 581 | Spring |
| SEYS 581 | Standards-Based Curriculum and Assessment in Teaching Mathematics | 3 | Prereqs. SEYS 571.2, 561 Co-req. SEYS 571.4 | Spring |

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*When SEYS 552 is taken as a co-requisite with SEYS 571.2, candidates are not required to do extra hours of fieldwork. However, the Educational Psychology tasks are to be completed in the field, independent of ICE.
**Prior to SEYS 571.2 candidates must have accumulated 100 hours of fieldwork. Please consult advisor regarding ways to accomplish this beyond the fieldwork hours required in SEYS courses.
***Candidates must earn a minimum grade of B to progress to SEYS 371.4.
*** Prior to taking SEYS 561 candidates must take Math 385W and earn a minimum grade of B.
****To be recommended for certification, students must have earned a minimum grade of B in SEYS 571.4.

## Requirements for Matriculation into Initial Certificate Program in Mathematics--\#849

These requirements are in addition to the general requirements for admission. To be admitted to the program a candidate must have:

1. A cumulative index and Mathematics index of at least B are required for matriculated status. Students who do not meet the above requirements may sometimes be permitted to enter as probationary matriculants. Probationary status will be removed when the first 12 credits of approved course work have been completed with a minimum average of $B$.

- At least 21 credits in college-level mathematics courses. These courses must include intermediate calculus, linear algebra, and probability and statistics with an average of at least B. Note that before taking the mathematics courses that go toward the Master's Degree, students must have the equivalent of a mathematics major or a total of 36 credits in college-level mathematics. Recommendations are given for specific coursework to mirror the undergraduate mathematics major for secondary education minors at Queens College.

2. Two letters of recommendation.
3. The GRE examination

| Math 151 | Calculus and Analytic Geometry <br> (three years of high school mathematics including intermediate <br> algebra and trigonometry, or Precalculus (Math 122) | 4 |
| :--- | :--- | :--- |
| Math 152 | Calculus <br> (Math 151) | 4 |
|  | Students may take the equivalent of Math 151, 152 with Math <br> $141,142,143: 9$ credits |  |
| Math 201 | Multivariable Calculus | 4 |

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|  | (Math 143 or Math 152) |  |
| :--- | :--- | :--- |
| Math 231 or <br> 237 | Linear Algebra or Honors Linear Algebra <br> (one semester of calculus or permission of Chair) | 4 |
| Math 241 | Probability and Statistics <br> (a one-year course in differential and integral calculus including <br> improper integrals) | 3 |


|  | Prior to taking SEYS 561 ALL Candidates Must take Math 385W and earn a minimum grade of $B$. |  |
| :---: | :---: | :---: |
| Math 385 (Spring only) | High School Math from an Advanced Standpoint (prereqs Math 201, Math 231) | 4 |
|  | Candidates who were not mathematics majors and need extra mathematics courses for the 36 credit requirement might consider selecting from the following courses in mathematics. |  |
| Math 220 | Discrete Mathematics | 3 |
| Math 242 | Statistics | 3 |
| $\begin{aligned} & \hline \text { Math } 333 \text { or } \\ & 613 \\ & \hline \end{aligned}$ | Introduction to Algebraic Structures | 3 |
| Math 245 | Mathematical Modeling | 3 |
| Math 223 | Differential Equations |  |
| Math 518 or 618 | College Geometry or Foundations of Geometry |  |
| Math 550.3 | Variable Topics |  |
| Math 505 | Introduction to Mathematical Problem Solving | 3 |
| Math 524 | History of Mathematics |  |

