

Queens College
Master of Arts in Teaching Mathematics

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The Master of Arts in Teaching (MAT) in Mathematics Education is a program of initial and professional certification combined in a 39-credit master's program. It is designed for candidates who have a major in Mathematics or a cohesive program of study of a minimum of 36 credits in Mathematics (MATH) courses. The MAT program consists of two sections: 24 credits for Initial Certification and 15 credits for Professional Certification in New York State: 6 credits in Mathematics Education (SEYS) and 9 credits in Mathematics (MATH). Candidates may take 9 credits in Mathematics (MATH) during the 24 credits. For initial certification candidates may take the 6 credits in Mathematics Education (SEYS) after completing the 24 credits for initial certification.

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 Pre-req. or co-req. SEYS 536	Spring
ECPSE 550	Foundations of Special Education	3	15 hours fieldwork	Spring
SEYS 552*	Educational Psychology	3	Prereqs. 536 & 700 Co-req. SEYS 571.2 & 561	Fall
SEYS 571.2** [course number may change]	Initial Clinical Experience in Mathematics	3	100 hours of clinical practice (4 days per week) in middle or high school Prereqs. 536 & 700	Fall
SEYS 561***	Seminar in the Teaching of Mathematics in Middle and High School	3	30 hours fieldwork in middle or high School; Prereqs. 536 & 700 Math 385W Co-req. SEYS 552	Fall
SEYS 571.4****	Student Teaching in Mathematics for Middle and High School	3	15 weeks, 5 days per week, 6 periods per day, in high	Spring

[course number may change]			or middle school; Prereqs. SEYS 571.2, 561 Co-req. SEYS 581	
SEYS 581	Standards-Based Curriculum and Assessment in Teaching Mathematics	3	Prereqs. SEYS 571.2, 561 Co-req. SEYS 571.4	Spring

MAT Coursework

Math 509	Set Theory and Logic	3	All semesters
Math 505	Problem Solving	3	All semesters
Math 524	History of Mathematics	3	All semesters
SEYS 775	Research in Mathematics education	3	Fall only
SEYS 751	Advanced Methods in Secondary Mathematics	3	Spring only

*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.
2. 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.

3. Two letters of recommendation.

4. The GRE examination

Math 151	Calculus and Analytic Geometry (three years of high school mathematics including intermediate algebra and trigonometry, or Precalculus (Math 122))	4
Math 152	Calculus (Math 151)	4
	Students may take the equivalent of Math 151, 152 with Math 141, 142, 143: 9 credits	
Math 201	Multivariable Calculus (Math 143 or Math 152)	4
Math 231 or 237	Linear Algebra or Honors Linear Algebra (one semester of calculus or permission of Chair)	4
Math 241	Probability and Statistics (a one-year course in differential and integral calculus including 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 and 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
Math 333 or 613	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	