Queens College  
Department of Secondary Education and Youth Services  
Master of Arts in Teaching  
MAT in Science Adolescent Education, Grades 7-12  
Program Code: ASE 7-12-MAT

SEYS Advisors:  
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Program of Study

The program of study is a combination of graduate level coursework in secondary education, science content, pedagogical science content knowledge, and clinical experiences at local area schools. The intent of the program is to graduate students who have a strong base of science content knowledge and solid pedagogical content knowledge based in research, theory, and practice.

<table>
<thead>
<tr>
<th>Course No. and Title</th>
<th>Pre-requisites and Co-requisites</th>
<th>Credits</th>
<th>Semester Taken</th>
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<tbody>
<tr>
<td><strong>Pedagogical Core</strong></td>
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| SEYS 536 – Educational Foundations (Spring/Fall)  
Students must complete 30 hours of fieldwork in a secondary school. | Matriculation in program | 3 |        |
| SEYS 552 – Educational Psychology (Fall)  
Students must complete 30 hours of fieldwork in a secondary school. | Matriculation in program | 3 |        |
| ECPSE 550 – Foundations in Special Education (Spring/Fall)  
Students must complete 15 hours of fieldwork in a secondary school. | Matriculation in program | 3 |        |
| SEYS 700 – Language, Literacy, and Culture in Education (Spring/Fall)  
Students must complete 30 hours of fieldwork in a secondary school. | Matriculation in program | 3 |        |
| **Science Education Pedagogical Content Courses** | | | |
| SEYS 562 – Seminar in Teaching Science (Spring)  
Students must complete 30 hours of fieldwork in a secondary school. | Matriculation in program | 3 |        |
| SEYS 582 – Standards-Based Curriculum and Assessment in Teaching Science (Fall) | Co-requisite: 572.2 | 3 |        |
| **Clinically-rich Student Teaching Program** | | | |
| SEYS 572.2* – ICE – Student Teaching I (Fall)  
1. All students are required to complete 100+ hours of field work prior to the Initial Clinical Experience (Student Teaching I).  
2. Submission of Content Specialty Test scores is required prior to Student Teaching I. (In potential area of initial certification)  
3. Candidates must also register for Content and Pedagogical Content Seminar for each semester of student teaching. | Pre-requisite: SEYS 52, 536, 700, CST**  
Pre or Co-requisite: 552  
Co-requisite: 582 | 3 |        |
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<tr>
<td>Geology 552**</td>
<td>GLOBE Environmental Science Research Course</td>
<td>3</td>
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\textit{Sample of Graduate Level Courses in the Science Content Area (minimum of 9 credits with advisor’s approval).}*

For the Science Content, a typical selection of courses might be drawn from the following:

- Biology 585 – Principles of Genetics
- Biology 586 – Principles of Cell Biology
- Biology 587 – Principles of Evolutionary Biology
- Chemistry 501 & 502 – Modern Concepts in General Chemistry
- Chemistry 503 – Special Topics: High School Chemistry
- Chemistry 504 – Environmental Chemistry
It is noted that students must accumulate through their undergraduate and graduate work a minimum total of 36 credits in science with a minimum of 30 of those credits in their specialist discipline (i.e., biology, chemistry, earth science, physics) to satisfy the New York State requirement for certification in the specialty area.

* Additional science classes must be approved by your advisor and will be selected based on any areas where deficiency in your educational preparation is identified.

** All MAT students are required to take Geology 552.

Total number of credits required = 42 (minimum)