

QUEENS COLLEGE

# Chemistry Secondary Education 7-12 BA

12

Required Core Credits

18

Flexible Core Credits

12

College Option Credits

42+27<sub>(SEYS)</sub> 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.*



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## Freshman

### FALL

English Composition I (EC1)	3 credits
MATH 122¥ (MQR)	4 credits
Precalculus	
CHEM 1134 & 1131 (LPS)	5 credits
General Chemistry I	
World Cultures & Global Issues (WCGI)	3 credits

**Fall total credits** **15 credits**

### SPRING

English Composition II (EC2)	3 credits
MATH 151¥	4 credits
Calculus I	
CHEM 1144 & 1141 (SW)	5 credits
General Chemistry II	
BIOL 105 (SCI)	4 credits
General Biology I	

**Spring total credits** **16 credits**

## Sophomore

### FALL

CHEM 2514 & 2511 (SCI)	5 credits
Organic Chemistry I	
MATH 152¥	4 credits
Calculus II	
PHYS 1454 & 1451 (LPS, SW, SCI)	5 credits
Principles of Physics I	
Creative Expression (CE)	3 credits

**Fall total credits** **17 credits**

### SPRING

CHEM 2524 & 2521	5 credits
Organic Chemistry II	
PHYS 1464 & 1461 (LPS, SW, SCI)	5 credits
Principles of Physics II	
U.S Experience in its Diversity (USED)	3 credits
Individual and Society (IS)	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.

Completion of 21 credits in major with 2.75 GPA or higher 3.0 GPA in SEYS courses required to continue in program. Program leads to professional certification to teach chemistry in high schools. Contact SEYS advisor for completing all NY State mandated requirements.



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## Junior

### FALL

CHEM 3413 & 3411	4 credits
Instrumental Methods	
CHEM 211	4 credits
Chemical Thermodynamics and Kinetics	
SEYS 201W (W)	3 credits
Historical, Social, and Philosophical	
Foundations of Education	
SEYS 221	3 credits
Development and Learning in Middle Child and Adolescence	
<b>Fall total credits</b>	<b>14 credits</b>

### SPRING

CHEM 371	4 credits
Biochemistry I	
CHEM 3213	3 credits
Practicum in Chemical Education	
SEYS 340	3 credits
Language, Literacy, & Culture in Education	
SEYS 362	3 credits
Methods in Teaching Science in Middle & High School	
ECPSE 350	3 credits
Foundations of Special Education	

**Spring total credits**

**16 credits**

## Senior

### FALL

CHEM 3313 and 3311	4 credits
Inorganic Chemistry	
SEYS 372.2	3 credits
Student Teaching Initial Clinical Experience in Science for Secondary School	
SEYS 382	3 credits
Curriculum and Assessment in Teaching Science	
SEYS 350	3 credits
Cognition, Technology & Instruction For Diverse Learners	
College Option Language (LANG)	4 credits

**Fall total credits**

**17 credits**

### SPRING

SEYS 372.4	3 credits
Student Teaching Clinical Experience in Science for Secondary School	
College Option Literature (LIT + W)	3 credits
With Writing Intensive Unit**	
General electives*	6 credits

**Spring total credits**

**12 credits**

\*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.

\*\* If a Literature course is taken with a W, it will count towards Literature and one Writing Intensive Unit.

‡ Students who fail or withdraw from this course multiple times may be prohibited from majoring in the sciences or mathematics; see your department for questions.

