

# Chemistry Secondary Education 7-12 BA

## FOUR-YEAR ACADEMIC PLAN

**12** Required Core Credits

**18** Flexible Core Credits

**12** College Option Credits

**62+27** (SEYS) Major Credits

**0** Elective Credits

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**131** Total

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2019 plan their academic career and ensure that they complete all requirements for graduation in a timely fashion. All other students should consult their academic and department advisors to chart their own 4-year academic plans. Students should note that course pre-requisite/s and co-requisite/s are strictly enforced and they should regularly meet with their department advisors to identify their specific major/minor requirements and entrance and maintenance criteria (if applicable) for successful completion of their 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

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### Junior

#### FALL

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

**Fall total credits 14 credits**

#### SPRING

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

**Spring total credits 16 credits**

### Senior

#### FALL

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

**Fall total credits 17 credits**

#### SPRING

SEYS 372.4 Student Teaching Clinical Experience in Science for Secondary School	3 credits
College Option Literature (LIT + W) With Writing Intensive Unit**	3 credits
CHEM 395 Senior Seminar	3 credits
General electives*	6 credits

**Spring total credits 15 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 an 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.