

Chemistry Secondary Education 7-12 BA

FOUR-YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

65+27 (SEYS) Major Credits

0 Elective Credits

This 4-year academic plan is for freshmen entering Queens College in Fall 2025.

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**

All students are required to complete 100 hours of fieldwork prior to Student Teaching I.

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	

Fall total credits 14 credits

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
Instructional Methods in Middle Childhood and Adolescent	
Science and Technology Education	
ECPSE 350	3 credits
Foundations of Special Education	

Spring total credits 16 credits

Senior

FALL

CHEM 3313 and 3311W	4 credits
Inorganic Chemistry	
SEYS 372.2	3 credits
Student Teaching I in Science and Technology for Middle and	
High School	
SEYS 382	3 credits
Instruction and Assessment in Teaching Science and	
Technology to Middle Childhood and Adolescent Students	
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 II in Science and Technology for Middle	
and High School Major or non-major	
College Option Literature (LIT)	3 credits
Major or General electives*	7 credits

Spring total credits 13 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.