

Biology Secondary Education 7-12 BA

FOUR-YEAR ACADEMIC PLAN

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

55+27 (SEYS) Major Credits

0 Elective Credits

124 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 151† (MQR)	4 credits
Calculus/Differentiation & Integration	
BIOL 105# (SW)	4 credits
General Biology I	
World Cultures & Global Issues (WCGI)	3 credits
US Experience in Its Diversity (USED)	3 credits

Fall total credits

17 credits

SPRING

English Composition II (EC2)	3 credits
(BIOL 13 recommended)	
BIOL 106# (SCI)	4 credits
General Biology II	
CHEM 1134+1131 (LPS)	5 credits
General Chemistry I	
Creative Expression (CE)	3 credits

Spring total credits

15 credits

Sophomore

FALL

Individual & Society (IS)	3 credits
College Option Literature (LIT+W)	3 credits
With Writing Intensive Unit**	
CHEM 1144 + 1141 (SW)	5 credits
General Chemistry II	
College Option Language (LANG)	4 credits

Fall total credits

15 credits

SPRING

BIOL 286	3/4 credits
Principles of Cell Biology	
OR BIOL 287 Principles of Evol. Biology	
Biology Electives*	4 credits
Laboratory course or Lecture course	
(BIOL 220*/230 recommended)	
Biology Electives*	4 credits
Laboratory course or Lecture course	
(BIOL 226*/310* recommended)	
BIOL 285	4 credits
Principles of Genetics	

Spring total credits

15 credits

† Please speak to the math department or a biology advisor if you are not eligible to take Math 151 in your first semester.

* **16 Biology credits** of which at least 2 must be 300 level courses, and 3 must be laboratory courses. It is recommended that these be chosen so that one or more courses are taken in the following 4 categories: **Botany, Zoology, Community & Ecosystem Biology, Cell & Developmental Biology.** BIOL 230 not open to students who have successfully completed any one of the following courses (or their equivalents): ECON 249; MATH 14; MATH 241; PSYCH 107; SOC 205, 306

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

BIOL 105 and BIOL 106 can be taken out of sequence.

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Junior

FALL

Biology Electives*	4 credits
Laboratory course or Lecture course (BIOL 385/386/315*/325/365*/373 recommended)	
CHEM 2514 + 2511 (SCI)	5 credits
Organic Chemistry I OR CHEM 1023+1021	
SEYS 201W (W)	3 credits
Historical, Social & Philosophical Foundation of Education (approval of SEYS faculty required)	
SEYS 221	3 credits
Development and Learning in Middle Childhood & Adolescence	

Fall total credits 15 credits

SPRING

Biology Electives*	4 credits
Laboratory course or Lecture course (BIOL 201*/326*/340/345/350 recommended)	
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	
Major or non-major Electives***	3/4 credits

Spring total credits 16 credits

Senior

FALL

Biology Electives*	3 credits
Laboratory course or Lecture course (BIOL 363*/366/245 recommended)	
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	
Major or non-major Electives***	3/4 credits

Fall total credits 16 credits

SPRING

Major or non-major Electives***	3/4 credits
(BIOL 362*/367 recommended)	
BIOL 381	1 credits
Colloquium in Biology	
SEYS 372.4	3 credits
Student Teaching Clinical Experience in Science for Secondary School	
Major or non-major Electives***	3/4 credits
Major or non-major Electives***	3/4 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 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.