

## Biology Secondary Education 7-12 BA

12 Required Core Credits

18 Flexible Core Credits

12 College Option Credits

57+27 (SEYS) Major Credits

0 Elective Credits

This 4-year academic plan is designed to help freshmen entering Queens College in Fall 2023. 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.

# Biology Secondary Education 7-12 BA

## Freshman

### FALL

English Composition I (EC1)	3 credits
MATH 132, or 142 or 151, or BIOL 230†‡ (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 1011+1013 (LPS)	4 credits
Basic Chemistry I	
Creative Expression (CE)	3 credits
Major or non-major Electives***	3 credits

**Spring total credits 17 credits**

## Sophomore

### FALL

Biology Electives*	4 credits
College Option Literature (LIT+W)	3 credits
With Writing Intensive Unit**	
CHEM 1021+1023 (SW)	4 credits
Basic Chemistry II	
College Option Language (LANG)	4 credits

**Fall total credits 15 credits**

### SPRING

BIOL 285	4/3 credits
Principles of Genetics	
OR BIOL 286 OR BIOL 287 (2 of 3)	
BIOL 285	4/3 credits
Principles of Genetics	
OR BIOL 286 OR BIOL 287 (2 of 3)	
Biology Electives*	4 credits
Laboratory course or Lecture course	
Biology Electives*	4 credits
Laboratory course or Lecture course	

**Spring total credits 16 credits**

**\*14 or 15 Biology credits** must be 200- and 300-level courses, of which at least two must be 300-level courses and at least three must be laboratory courses.

**Also required are 16 credits in major-level courses in the following cognate departments:** Chemistry & Biochemistry; Computer Science; Earth & Environmental Sciences; Family, Nutrition & Exercise Sciences; Mathematics; Physics. These courses are to be chosen in consultation with the advisor.

**Also required is a co-major in Secondary Education & Youth Services**, as prescribed by a subject matter advisor of the pertinent SEYS Department.

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

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

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## Junior

### FALL

Biology Electives*	4 credits
Laboratory course or Lecture course 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 Individual & Society (IS)	3 credits
Major or non-major Electives***	3 credits

**Fall total credits 16 credits**

### SPRING

Biology Electives*	4 credits
Laboratory course or Lecture course 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 credits

**Spring total credits 16 credits**

## Senior

### FALL

Biology Electives*	3 credits
Laboratory course or Lecture course 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 15 credits**

### SPRING

Major or non-major Electives***	3/4 credits
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
Major or non-major Electives***	3/4 credits

**Spring total credits 15 credits**

# BIOL 105 and BIOL 106 can be taken out of sequence. Students can be registered into BIOL 106 by the department if they cannot get BIOL 105 first.

¥ 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.

\*\*\*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.