

**CONCENTRATION PLAN FOR BACHELOR OF ARTS DEGREE IN
 BIOLOGY-EDUCATION (Major Code 017)**

Category	Course Number	Course Title	QC Credits	Transfer Credits	Term	Grade Min. of C-Required
Core Biology	105.0	Gen Biol: Physiology & Cell Biology	4.0			
	106.0	Gen Biol: Life Forms & Ecosystems	4.0			
Core Biology Choose 2 of 3 in this group	285	Principles of Genetics	4.0			
	286	Principles of Cell Biology	3.0			
	287	Principles of Evolutionary Biology	4.0			
Biology Electives	† Choose from the following: 200, 201, 213, 220, 226, 230 241, 245, 261, 262, 263, 280 310, 312, 315, 320, 321, 325, 326 330, 340, 345, 346, 347, 348, 349 350, 352, 355, 360, 364, 365, 366, 371, 372, 373, 380, 385, 386, 387					
Chemistry Req	101/113	Basic Chemistry / General Chemistry I	4.0/5.0			
	102/251	Basic Organic / Organic I	4.0/5.0			
Math	151/142/ Biol 230	Calculus I / Calculus / Biostatistics	4.0/3.0 /4.0			
Other Electives	Major-level courses from these departments: Chemistry & Biochemistry; Computer Science; Earth & Environmental Sciences; Family, Nutrition & Exercise Sciences (FNES); Mathematics; Physics		16.0			
TOTAL CREDITS:						

IMPORTANT REQUIREMENTS TO REMEMBER FOR BIOLOGY-EDUCATION MAJOR

- Must have at least 30 credits in Biology, including Biology 105.0 and Biology 106.0.
- Choose at least two (2) of the following: Biology 285, Biology 286, and Biology 287.
- At least 16 of the Biology credits above Biology 106.0 must be taken at Queens College.
- Transfers: A maximum of 16 Biology credits are accepted as transfer credits in the major.

† At least three (3) of the Biology Electives must be a laboratory/field course and at least two (2) of the Biology Electives must be at the 300-level.

**Queens College
Secondary Education & Youth Services (SEYS)**

Undergraduate Science Education Initial Certificate

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Undergraduate students must have completed at least 15-20 credits in a traditional science major (biology, chemistry, geology, physics) with a minimum average of 2.75 in order to declare their second major in secondary education. Qualified students must have a major form signed by the appropriate science department advisor and a similar form signed by an advisor in SEYS (PH 150). The forms should be submitted by the upper sophomore/lower junior year. Candidates must earn a minimum letter grade of B in 362 and student teaching.

Course Number	Title	Pre-requisites and Co-Requisites	Credits	Fieldwork Required
SEYS 201W (Spring or Fall)	Historical, Social and Philosophical Foundations of Education	Upper Sophomore, major declared	3	25 Hours Fieldwork
SEYS 221 (Spring or Fall)	Development and Learning in Middle Childhood & Adolescence	Upper Sophomore, major declared	3	25 Hours Fieldwork
ECPSE 350 (Spring or Fall)	Foundations of Special Education	Upper Sophomore, major declared	*3	15 Hours of Fieldwork
SEYS 340 (Spring or Fall)	Language, Literacy, and Culture In Education	Pre-requisite: SEYS 201W	3	25 Hours Fieldwork
SEYS 362 (Spring ONLY)	Methods in Teaching Science in Middle and High School	Pre-requisite: SEYS 201W, 221 Pre- or Co-requisite: SEYS 340	3	25 Hours Fieldwork
SEYS 350 (Fall ONLY)	Cognition, Technology and Instruction for Diverse Learners	Pre-requisite: 221	3	25 Hours Fieldwork
SEYS 372.2 (Fall ONLY)	Initial Clinical Experience (ICE)	Pre or Co-req.: SEYS 350 Pre-req.: SEYS 362 Co-req. SEYS 382**	3	180 + Hours in Student Teaching I M-Th
SEYS 382 (Fall Course)	Standards-Based Curriculum and Assessment in Teaching Science	Pre-req.: SEYS 362 Co-requisite: 372.2	3	No Fieldwork
SEYS 372.4 (Spring Course)	Student Teaching Science in Middle or High School	Pre-requisite: SEYS 362, 372.2, 382	3	Student Teaching II M-F
TOTAL NUMBER OF CREDITS			27	

All students are required to complete 100 hours of fieldwork prior to Student Teaching I the Initial Clinical Experience (ICE).

*Credits not applicable to the program's Total Number of Credits

**Submission of Content- Specialty Test (CST) official score report prior to the first student teaching placement, with overall score and sub-scores (candidates who do not pass must develop a remediation plan signed by advisor prior to student teaching).

***Submission of the Educating All Students (EAS) official score report prior to the first student teaching placement, with overall score and sub-scores (candidates who do not pass must develop a remediation plan signed by advisor prior to student teaching).