

**Biology Majors must satisfy all of CCNY's General Education requirements in addition to the requirements for the major.
The Science Advising Office (CCAPP) is responsible for compliance with graduation requirements not related to the Biology Major.**

Required courses for all biology majors

Course	Name	Cr	Prereqs ¹	Coreqs ²	Note	Fee	Terms Offered ³			
							Fa	Wi	Sp	Su
BIO 10100	Biological Foundations I	4	MATH 19000			\$10	A		A	A
BIO 10200	Biological Foundations II	4	BIO 10100			\$10	A		A	A
BIO 20600	Introduction to Genetics	4	BIO 10100 & BIO 10200				A		A	A
BIO 20700	Organismic Biology	4	BIO 10100 & BIO 10200	CHEM 10301 & MATH 19500 & ENGL 21003		\$30	A		A	A
BIO 22800	Ecology & Evolution	4		BIO 20600 & (MATH 17300 or MATH 20900)	4	\$10	A		A	
BIO 22900	Cell & Molecular Biology	4	BIO 20600			\$10	A		A	S
CHEM 10301	General Chemistry I	4	MATH 19500 with grade of C or higher			\$30	A		A	A
CHEM 10401	General Chemistry II	4	CHEM 10301 with grade of C or higher			\$30	A		A	A
CHEM 26100	Organic Chemistry I	3	CHEM 10401 with grade of C or higher				A		A	
PHYS 20300 [†]	General Physics I	4	MATH 19500			\$10	A		A	A
PHYS 20400 [†]	General Physics II	4	PHYS 20300			\$10	A		A	A
MATH 20500 [‡]	Elements of Calculus	4	Placement or MATH 19500 with grade of C or higher				A		A	A
MATH 20900 [‡]	Elements of Calc & Stats	4	Placement or MATH 20500 with grade of C or higher				A		A	A

¹Prerequisite: Must have completed the course and passed with grade of C or better.

²Corequisite: Must have completed the course and passed with grade of C or better or may be taken contemporaneously.

³Fa = Fall, Wi = Winter, Sp = Spring, Su = Summer; A = Always, S = Sometimes

⁴If MATH 20900 or 17300 not taken as a pre- or coreq, then MATH 21200[§] can be taken as a prereq.

[†]Acceptable PHYS sequences: (preferred: 20300,20400) or (20700,20400) or (20700,20800)

[‡]Acceptable MATH sequences: (preferred: 20500,20900) or (20100,20900) or (20100,21200[§],21300) or (20100,21200[§],17300)

[§]MATH 21200 was previously numbered MATH 20200.

Honors & Independent Study courses (These courses count towards biology major credit and biology residency requirements.)

Course	Name	Cr	Prereqs ¹	Coreqs ²	Note	Fee	Terms Offered ³			
							Fa	Wi	Sp	Su
BIO 30100	Honors I	3	BIO 10100, BIO 10200, & 20600	Two of these: BIO 20700, BIO 22800, BIO 22900	5,6		A		A	S
BIO 30200	Honors II	3	BIO 30100		5,6		A		A	S
BIO 30300	Honors III	3	BIO 30200	See note 7 below.	5,6,7		A		A	S
BIO 31000	Independent Study	1-3	BIO 20600	Two of these: BIO 20700, BIO 22800, BIO 22900	6,8		A		A	S

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⁵A GPA of 3.5 in biology and 3.0 or better overall is required for honors.

⁶Admission to Honors or Independent Study is by application to the Honors and Independent Study faculty committee; applications are due 3 weeks before the start of each term.

⁷A maximum of 6 credits from Honors courses may count towards biology elective credits. BIO 30300 therefore does not fulfill biology elective credit requirements, but it does count towards the total needed for graduation.

⁸A GPA of 3.0 in biology or better is required for Independent Study. BIO 31000 can be taken multiple times, but a maximum of 6 credits may count towards biology elective credits. Credits above 6 still count towards the total needed for graduation.

Elective courses that count towards the biology major credit requirement and the residency requirement

Terms Offered³

Course	Name	Cr	Prereqs ¹	Coreqs ²	Note	Fee	Fa	Wi	Sp	Su
BIO 31100 - BIO 32000	Selected Topics in Biology	1-4	Determined by instructor				S		S	
BIO 46500	Ethnobotany	3	CHEM 10301 & CHEM 10401	BIO 22900			S		S	
BIO 33000	Survey of the Vertebrates	3	BIO 10200		9		S		S	
BIO 34500	Botany	4	BIO 10200 & CHEM 10301						S	
BIO 35000	Advanced Microbiology	4	BIO 22900			\$25			S	
BIO 35100	Anthropological Genomics	3	BIO 22800				S		S	
BIO 35400	Introduction to Neurobiology	3	BIO 20700 or BIO 22900				S		S	
BIO 37500	Developmental Biology	3	BIO 22900				S	S	S	S
BIO 37900	Developmental Neurobiology	3	BIO 22900				S		S	
BIO 38000	Eukaryotic Genetics	4	BIO 22800 & BIO 22900				S		S	S
BIO 40100	Cardiovascular, Renal & Respiratory Physiol.	4	BIO 20700 or Instructor Permission				S		S	
BIO 41000	Cell Development & Cellular Senescence	3	BIO 22900				S		S	
BIO 42000	Virology	3	BIO 22900				S		S	
BIO 41200 – BIO 41299	Seminars on Selected Topics in Biology	1-4	Determined by instructor				S		S	
BIO 42500	Cancer Biology	3	BIO 22900				S		S	
BIO 44300	Insect Ecology	4	BIO 22800 or Instructor Permission				S			
BIO 44900	Biology of Birds	4		BIO 20700 or BIO 22800	9		S		S	
BIO 45100	Movement & Muscle	3	BIO 20700 or BIO 35400 or Instructor Permission				S		S	
BIO 45300	Conservation Biology	3	BIO 22800		9		A		A	
BIO 45400	Sensory Perception	3	BIO 20700 or BIO 22900				S		S	
BIO 45500	Advanced Ecology	3	BIO 22800 & (MATH 20900 or MATH 17300 or MATH 21200 [§])		9		A		A	
BIO 45800	Biogeography	3	BIO 22800 or Instructor Permission				S		S	
BIO 46000	Animal Behavior	3	BIO 10200				S	S	S	
BIO 46700	Comparative Physiological Ecology	3	BIO 20700 & BIO 22800				S		S	
BIO 48000	Current Topics in Microbiology	3	BIO 22900 or Instructor Permission				S		S	
BIO 48100	Introduction to Epigenetics	3	BIO 20600				A		S	
BIO 48300	Laboratory in Biotechnology	5	BIO 22900 & Instructor Permission			\$30		S		
BIO 48500	Evolution	3	BIO 22800 or Instructor Permission				S		S	S
BIO 48800	Tropical Ecology & Conservation	4	BIO 10200 & Instructor Permission		10	\$1,550		S		S

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⁹Taught in the American Museum of Natural History. Budget appropriate travel time between classes.

¹⁰Study abroad course. Course fee includes most meals & all accommodation but not air travel. Fee subject to change.

[§]MATH 21200 was previously numbered MATH 20200.

Elective courses that count towards the biology major credit requirement but NOT the biology residency requirement | Terms Offered³

Course	Name	Cr	Prereqs ¹	Note	Fee	Fa	Wi	Sp	Su
CHEM 32002	Biochemistry I	3	(CHEM 26100 & CHEM 26300 with grade of C or better) or (CHEM 26100 & Instructor Permission)	11		S		S	
CHEM 44000	Journey to the Center of the Cell	3	CHEM 32002 or Instructor Permission					S	
PHIL 32200	Philosophy of Science	3				S		S	
PHIL 34905	Biomedical Ethics	3	One semester of philosophy or Instructor Permission					S	
PHYS 42200	Biophysics	3	1 yr. math & 1 yr. physics					A	
PHYS 42300	Biophysics in Applications	3	1 yr. math & 1 yr. physics			S			
SCI 28000	Bioinformatics & Biomolecular Systems	3	1 yr. biology & 1 yr. chemistry			S		S	

¹Prerequisite: Must have completed the course and passed.

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¹¹Also called CHEM 45902; cannot take one course if you've taken the other.

Elective courses that DO NOT count towards the biology credit requirement NOR the biology residency requirement | Terms Offered³

Course	Name	Cr	Prereqs ¹	Note	Fee	Fa	Wi	Sp	Su
BIO 32100	Physiological Processes	3	BIO 10100 & MATH 20103			S			
BIO 24700	Anatomy & Physiology I	4	BIO 10100 or Departmental Permission		\$20	A		A	A
BIO 24800	Anatomy & Physiology II	4	BIO 247		\$25	A		A	A
BIO 24900	Microbiology for Healthcare Professionals	4	BIO 10100 & CHEM 10301 & Departmental Permission			A		A	

¹Prerequisite: Must have completed the course and passed with grade of C or better.

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