

BIOLOGY MAJOR, BS

Campus: NYC, Westchester

General Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	4
CHE 111	General Chemistry I	4
MAT 103 or MAT 130	Algebra (Or MAT 131) or Precalculus	0-4
UNV 101	First-Year Seminar: Introduction to University Community (STEM Major section)	1
Credits		12-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131	Precalculus (Or CIS 101) or Calculus I	4
ENG 120	Critical Writing	4
Credits		8-16
Second Year		
Fall		
BIO 231	Genetics	0-4
CHE 223	Organic Chemistry I	0-5
Take any one remaining Area of Knowledge course		3
One Learning Community (LC) course		3
One Learning Community (LC) course		3
Credits		9-18
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
CHE 224	Organic Chemistry II	0-5
CIS 101	Introduction to Computing (or Any one remaining Area of Knowledge course)	0-3
ENG 201	Writing in the Disciplines	3
Credits		7-15
Third Year		
Fall		
BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	0-4
PHY 101	College Physics I	0-4
One elective course in BIO		3
First Second Language Course. See Advisor for guidelines		3
Credits		10-18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Intensive (WE) course)	0-3
MAT 141	Introductory Statistics for the Life Sciences (Counts toward Analysis of Human, Social, and Natural Phenomena (AOK5))	4
PHY 102	College Physics II	0-4

One elective course in BIO		3
Second Language Course, if applicable		3
	Credits	10-17
Fourth Year		
Fall		
BIO 395 or BIO 480 or BIO 491	Independent Study in Biology or Research in Biology or Internship in Biology	3
COM 200	Public Speaking	3
BIO 493	Major Field Test in Biology	0
Take any one remaining Area of Knowledge course		3
One elective course in BIO		4
	Credits	13
Spring		
One elective course in BIO		4
Take any one remaining Area of Knowledge course		3
Take any one remaining Area of Knowledge course or Open elective course		3
Civic Engagement (CE) course		3
One elective course in BIO		4
	Credits	17
	Total Credits	86-130

Biology, BS / Biochemistry & Molecular Biochemistry, MS Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I (Writing Enhanced (WE))	4
CHE 111	General Chemistry I	4
MAT 103 or MAT 130 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community (STEM Major section)	1
	Credits	15-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131	Precalculus or Calculus I	4
ENG 120	Critical Writing	4
	Credits	8-16
Second Year		
Fall		
BIO 231	Genetics	0-4
CHE 223	Organic Chemistry I	0-5
Take any one remaining Area of Knowledge course		3
One Learning Community (LC) course		3
One Learning Community (LC) course		3
	Credits	9-18

Spring

BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
CHE 224	Organic Chemistry II	0-5
CIS 101	Introduction to Computing (or Any one remaining Area of Knowledge course)	0-3
ENG 201	Writing in the Disciplines	3

Credits **7-15**

Third Year**Fall**

BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	0-4
PHY 101	College Physics I	0-4
MAT 141	Introductory Statistics for the Life Sciences (Analysis of Human, Social, and Natural Phenomena (AOK5))	4

First Second Language Course. See Advisor for guidelines 3

Credits **11-19**

Spring

BIO 490	Introduction to Research in the Biological Sciences (Writing Intensive (WE) course)	0-3
PHY 102	College Physics II	0-4

Take any one remaining Area of Knowledge course 3

Take any one remaining Area of Knowledge course 3

Second Language Course, if applicable 3

Credits **9-16**

Fourth Year**Fall**

BIO 493	Major Field Test in Biology	0
COM 200	Public Speaking	3
BMB 629	Molecular Biochemistry	4
BIO 480	Research in Biology (BIO 395 and BIO 491 cannot substitute for BIO 480 in this track)	3
BMB 626	Cellular Biochemistry and Advanced Molecular Biology	4
BMB 610	Seminar	1

Credits **15**

Spring

Civic Engagement (CE) course 3

One elective course in BIO 4

BMB 640	Physical Biochemistry	4
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BMB 710	Research I	4
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Take any one remaining Area of Knowledge course or Open elective course 3

Credits **18**

Total Credits **92-133**

Pre-Professional, Pre-Med Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	0-4
CHE 111	General Chemistry I	0-4

MAT 103 or MAT 130 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Credits		7-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131	Precalculus or Calculus I	4
ENG 120	Critical Writing	4
Credits		8-16
Second Year		
Fall		
BIO 231	Genetics	0-4
PHY 101	College Physics I	0-4
CHE 223	Organic Chemistry I	5
Two Learning Community (LC) courses		6
Credits		11-19
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
CHE 224	Organic Chemistry II	5
PHY 102	College Physics II	0-4
ENG 201	Writing in the Disciplines	3
Credits		12-16
Third Year		
Fall		
BIO 210	Ecology	0-4
BIO 327	Cellular Biochemistry	4
BIO 251	Principles of Human Anatomy	4
Take any one remaining Area of Knowledge course or CIS 101		3
First Second Language Course. See Advisor for guidelines		3
Credits		14-18
Spring		
BIO 264	Microbiology	0-4
BIO 334	General Physiology	0-4
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	0-3
MAT 141	Introductory Statistics for the Life Sciences	4
Second Language Course, if applicable		3
Credits		7-18
Fourth Year		
Fall		
One elective course in subject BIO		4
BIO 493	Major Field Test in Biology	0
BIO 395 or BIO 480 or BIO 491	Independent Study in Biology or Research in Biology or Internship in Biology	3
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
COM 200	Public Speaking	3
Credits		14
Spring		
One elective course in subject BIO		4

One Civic Engagement (CE) course	3
Take any one remaining Area of Knowledge course	3
Take any one remaining Area of Knowledge course	3
Take any one remaining Area of Knowledge course (if needed)	3
Credits	16
Total Credits	89-133

Pre-Professional, Pre-Occupational Therapy Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	0-4
CHE 111	General Chemistry I	0-4
MAT 103 or MAT 130 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Credits		7-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131 or CIS 101	Precalculus or Calculus I or Introduction to Computing	4
ENG 120	Critical Writing	4
PSY 112	Introduction to Psychology (Counts toward Analysis of Human, Social, and Natural Phenomena (AOK5))	4
Credits		12-20
Second Year		
Fall		
BIO 231	Genetics	0-4
PHY 101	College Physics I	0-4
One Learning Community (LC) course with COM 200		3
COM 200	Public Speaking (Learning Community (LC))	3
PSY 320	Abnormal Psychology I	3
Credits		9-17
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
First Second Language Course. See Advisor for guidelines. Or CIS 101		3
Take any one remaining Area of Knowledge course		3
PHY 102	College Physics II	0-4
ENG 201	Writing in the Disciplines	3
Credits		13-17
Third Year		
Fall		
BIO 210	Ecology	0-4
BIO 251	Principles of Human Anatomy	0-4
BIO 327	Cellular Biochemistry	4

MAT 141	Introductory Statistics for the Life Sciences (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
PHY 101	College Physics I	0-4
COM 200	Public Speaking	3
One Learning Community (LC) course with COM 200		3
Credits		10-18
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
CIS 101	Introduction to Computing (Or First Language Course)	0-3
PHY 102	College Physics II	0-4
ENG 201	Writing in the Disciplines	3
Take any one remaining Area of Knowledge course		3
Credits		10-17
Third Year		
Fall		
BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	0-4
BIO 251	Principles of Human Anatomy	0-4
First Second Language Course. See Advisor for guidelines, or Second Language Course		3
Take any one remaining Area of Knowledge course and Civic Engagement (CE) course		3
Credits		10-18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE))	0-3
BIO 264	Microbiology	0-4
BIO 493	Major Field Test in Biology	0
BIO 334	General Physiology	0-4
BIO 395	Independent Study in Biology	3
or BIO 480	or Research in Biology	
or BIO 491	or Internship in Biology	
Take any one remaining Area of Knowledge course (Paired with BIO 395, BIO 480, or BIO 491)		3
Credits		6-17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	0-5
CHE 223	Organic Chemistry I (In the summer)	0-5
First Second Language Course. See Advisor for guidelines, or Second Language course (In the summer, if needed)		
Fall credits at Albany College of Pharmacy		21
Credits		21-31
Total Credits		76-137

Pre-Professional, Pre-Podiatry Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	0-4
CHE 111	General Chemistry I	0-4

MAT 103 or MAT 130 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community ((STEM Major section))	1
Credits		7-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131 or CIS 101	Precalculus or Calculus I or Introduction to Computing	4
ENG 120	Critical Writing	4
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
Credits		12-20
Second Year		
Fall		
BIO 231	Genetics	0-4
PHY 101	College Physics I	0-4
COM 200	Public Speaking (Learning Community (LC))	3
One Learning Community (LC) course (with COM 200)		3
First Second Language Course. See Advisor for guidelines		3
Credits		9-17
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
PHY 102	College Physics II	0-4
ENG 201	Writing in the Disciplines	3
Second Language Course, if applicable		3
CIS 101	Introduction to Computing (If needed)	0-3
Credits		10-17
Third Year		
Fall		
BIO 210	Ecology	0-4
BIO 251	Principles of Human Anatomy	0-4
BIO 327	Cellular Biochemistry	4
Take any one remaining Area of Knowledge and Civic Engagement (CE) course		3
Take any one remaining Area of Knowledge course		3
Credits		10-18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	0-3
MAT 141	Introductory Statistics for the Life Sciences (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
BIO 493	Major Field Test in Biology	0
BIO 334	General Physiology	0-4
BIO 395 or BIO 480 or BIO 491	Independent Study in Biology or Research in Biology or Internship in Biology	3
Take any one remaining Area of Knowledge course		3
Credits		10-17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	0-5
CHE 224	Organic Chemistry II (In the summer)	0-5

Fall credits at NY College of Podiatry	19
Credits	19-29
Total Credits	77-134

Pre-Professional, Pre-Optometry Track

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	0-4
CHE 111	General Chemistry I	0-4
MAT 103 or MAT 130 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community ((STEM Major section))	1
Credits		7-16
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
MAT 130 or MAT 131 or CIS 101	Precalculus or Calculus I or Introduction to Computing	4
ENG 120	Critical Writing	4
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
Credits		12-20
Second Year		
Fall		
BIO 231	Genetics	0-4
PHY 101	College Physics I	0-4
MAT 141	Introductory Statistics for the Life Sciences (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
COM 200	Public Speaking ((Learning Community (LC) course)	3
One Learning Community (LC) course		3
Credits		10-18
Spring		
BIO 335	Molecular and Cellular Biology (Writing Enhanced (WE) course. In NYC, take BIO 335 and BIO 335A for 5 credits; in PLV, BIO 335 for 4 credits)	4
CIS 101	Introduction to Computing (Or First Language course)	0-3
PHY 102	College Physics II	0-4
ENG 201	Writing in the Disciplines	3-4
Take any one remaining Area of Knowledge course		3
Credits		10-18
Third Year		
Fall		
BIO 210	Ecology	0-4
BIO 251	Principles of Human Anatomy	0-4
BIO 327	Cellular Biochemistry	4
First Second Language Course. See Advisor for guidelines, or Second Language Course		3
Take any one remaining Area of Knowledge and Civic Engagement (CE) course		
Credits		7-15

Spring

BIO 490	Introduction to Research in the Biological Sciences	0-3
BIO 264	Microbiology	0-4
BIO 493	Major Field Test in Biology	0
BIO 334	General Physiology	4
BIO 395 or BIO 480 or BIO 491	Independent Study in Biology or Research in Biology or Internship in Biology	3
Take any one remaining Area of Knowledge course		3
Credits		10-17

Fourth Year**Fall**

CHE 223	Organic Chemistry I (In the summer)	0-5
CHE 224	Organic Chemistry II (In the summer)	0-5
First and Second Language courses in the summer, if needed		
Fall credits at SUNY College of Optometry		21
Credits		21-31
Total Credits		77-135