

BIOLOGY MAJOR, BS

Campus: NYC, Westchester

General Track

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	3-4
UNV 101	First-Year Seminar: Introduction to University Community (STEM Major section)	1
Credits		15-16
Spring		
BIO 102	General Biology II	4
CHE 112	General Chemistry II	4
MAT 130 or MAT 131	Precalculus (Or CIS 101) or Calculus I	4
ENG 120	Critical Writing	4
Credits		16
Second Year		
Fall		
BIO 231	Genetics	4
CHE 223	Organic Chemistry I	5
Take any one remaining Area of Knowledge course		3
One Learning Community (LC) course		3
One Learning Community (LC) course		3
Credits		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)	4-5
CHE 224	Organic Chemistry II	5
CIS 101	Introduction to Computing (or Any one remaining Area of Knowledge course)	3
ENG 201	Writing in the Disciplines	3
Credits		15-16
Third Year		
Fall		
BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	4
PHY 101	College Physics I	4
One elective course in BIO		3
First Second Language Course. See Advisor for guidelines		3
Credits		18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Intensive (WE) course)	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	4
One elective course in BIO		3

Second Language Course, if applicable		3
	Credits	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	129-131

Biology, BS / Biochemistry & Molecular Biochemistry, MS Track

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	4
CHE 112	General Chemistry II	4
MAT 130 or MAT 131	Precalculus or Calculus I	4
ENG 120	Critical Writing	4
	Credits	16
Second Year		
Fall		
BIO 231	Genetics	4
CHE 223	Organic Chemistry I	5
Take any one remaining Area of Knowledge course		3
One Learning Community (LC) course		3
One Learning Community (LC) course		3
	Credits	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)	4-5
CHE 224	Organic Chemistry II	5
CIS 101	Introduction to Computing (or Any one remaining Area of Knowledge course)	3

ENG 201	Writing in the Disciplines	3
Credits		15-16
Third Year		
Fall		
BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	4
PHY 101	College Physics I	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		19
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Intensive (WE) course)	3
PHY 102	College Physics II	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		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	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
BMB 710	Research I	4
Take any one remaining Area of Knowledge course or Open elective course		3
Credits		18
Total Credits		132-134

Pre-Professional, Pre-Med Track

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 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Credits		15-16
Spring		
BIO 102	General Biology II	4
CHE 112	General Chemistry II	4

MAT 130 or MAT 131	Precalculus or Calculus I	4
ENG 120	Critical Writing	4
Credits		16
Second Year		
Fall		
BIO 231	Genetics	4
PHY 101	College Physics I	4
CHE 223	Organic Chemistry I	5
Two Learning Community (LC) courses		6
Credits		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)	4-5
CHE 224	Organic Chemistry II	5
PHY 102	College Physics II	4
ENG 201	Writing in the Disciplines	3
Credits		16-17
Third Year		
Fall		
BIO 210	Ecology	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		18
Spring		
BIO 264	Microbiology	4
BIO 334	General Physiology	4
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	3
MAT 141	Introductory Statistics for the Life Sciences	4
Second Language Course, if applicable		3
Credits		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		132-134

Pre-Professional, Pre-Occupational Therapy Track

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 or MAT 131	Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Credits		15-16
Spring		
BIO 102	General Biology II	4
CHE 112	General Chemistry II	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		20
Second Year		
Fall		
BIO 231	Genetics	4
PHY 101	College Physics I	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		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)	4-5
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	4
ENG 201	Writing in the Disciplines	3
Credits		17-18
Third Year		
Fall		
BIO 210	Ecology	4
BIO 251	Principles of Human Anatomy	4
BIO 327	Cellular Biochemistry	4
Take any one remaining Area of Knowledge course and Civic Engagement (CE) course		3
First Second Language Course. See Advisor for guidelines, or Second Language Course if needed		3
Credits		18
Spring		
BIO 334	General Physiology	4
BIO 490	Introduction to Research in the Biological Sciences	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 395 or BIO 480 or BIO 491	Independent Study in Biology (Paired with Area of Knowledge course) or Research in Biology or Internship in Biology	3
Take any one remaining Area of Knowledge course		3
Credits		17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	5
CHE 224	Organic Chemistry II (In the summer)	5
First Second Language Course. See Advisor for guidelines, in the summer, if needed		3
Second Language Course, if applicable, in the summer, if needed		3
Fall semester at Columbia University		14
Credits		30
Total Credits		134-136

Pre-Professional, Pre-Pharmacy Track

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 103 or MAT 130 or MAT 131	Algebra or Algebra or Precalculus or Calculus I	3-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Credits		15-16
Spring		
BIO 102	General Biology II	4
CHE 112	General Chemistry II	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		20
Second Year		
Fall		
BIO 231	Genetics	4
MAT 141	Introductory Statistics for the Life Sciences (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
PHY 101	College Physics I	4
COM 200	Public Speaking	3
One Learning Community (LC) course with COM 200		3
Credits		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)	4-5
CIS 101	Introduction to Computing (Or First Language Course)	3
PHY 102	College Physics II	4
ENG 201	Writing in the Disciplines	3

Take any one remaining Area of Knowledge course		3
Credits		17-18
Third Year		
Fall		
BIO 327	Cellular Biochemistry	4
BIO 210	Ecology	4
BIO 251	Principles of Human Anatomy	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		18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE))	3
BIO 264	Microbiology	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 (Paired with BIO 395, BIO 480, or BIO 491)		3
Credits		17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	5
CHE 223	Organic Chemistry I (In the summer)	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		31
Total Credits		136-138

Pre-Professional, Pre-Podiatry Track

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 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	4
CHE 112	General Chemistry II	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		20
Second Year		
Fall		
BIO 231	Genetics	4

PHY 101	College Physics I	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		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)	4-5
PHY 102	College Physics II	4
ENG 201	Writing in the Disciplines	3
Second Language Course, if applicable		3
CIS 101	Introduction to Computing (If needed)	3
Credits		17-18
Third Year		
Fall		
BIO 210	Ecology	4
BIO 251	Principles of Human Anatomy	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		18
Spring		
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	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	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		3
Credits		17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	5
CHE 224	Organic Chemistry II (In the summer)	5
Fall credits at NY College of Podiatry		19
Credits		29
Total Credits		133-135

Pre-Professional, Pre-Optometry Track

Course	Title	Credits
First Year		
Fall		
ENG 110	Composition	3
BIO 101	General Biology I	4
CHE 111	General Chemistry I	4
MAT 103	Algebra	3-4
or MAT 130	or Precalculus	
or MAT 131	or Calculus I	
UNV 101	First-Year Seminar: Introduction to University Community ((STEM Major section))	1
Credits		15-16

Spring		
BIO 102	General Biology II	4
CHE 112	General Chemistry II	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		20
Second Year		
Fall		
BIO 231	Genetics	4
PHY 101	College Physics I	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		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)	4-5
CIS 101	Introduction to Computing (Or First Language course)	3
PHY 102	College Physics II	4
ENG 201	Writing in the Disciplines	3-4
Take any one remaining Area of Knowledge course		3
Credits		17-19
Third Year		
Fall		
BIO 210	Ecology	4
BIO 251	Principles of Human Anatomy	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		15
Spring		
BIO 490	Introduction to Research in the Biological Sciences	3
BIO 264	Microbiology	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		17
Fourth Year		
Fall		
CHE 223	Organic Chemistry I (In the summer)	5
CHE 224	Organic Chemistry II (In the summer)	5
First and Second Language courses in the summer, if needed		
Fall credits at SUNY College of Optometry		21
Credits		31
Total Credits		133-136