

# BIOCHEMISTRY MAJOR

## Tracks

### General track

Course	Title	Credits
<b>Required Courses</b>		
CHEM 4221 & CHEM 4231	Biochemistry I and Biochemistry Lab I	4
CHEM 4222	Biochemistry II	3
CHEM 3141	Methods of Biochemical Research (also fulfills Eloquentia Perfecta 3 requirement for the Core Curriculum)	3
CHEM 4251	Physical and Computational Models of Biochemical Systems	3
CHEM 4030	Chemistry Seminar (taken in both semesters of junior and senior years, four times total)	0
Select one of the following (Rose Hill students take BISC; Lincoln Center students take NSCI):		3 to 5
BISC 2539 & BISC 2549	General Genetics and General Genetics Lab	
NSCI 3133	Genetics Lecture	
Select one of the following (Rose Hill students take BISC; Lincoln Center students take NSCI):		3 to 5
BISC 3752	Molecular Biology	
NSCI 4176 & NSCI 4876	Molecular Biology Lecture and Molecular Biology Lab	
<b>Elective Courses</b>		
Select two of the following:		6 to 12
BISC 3132 & BISC 3142	Human Physiology and Human Physiology Lab	
BISC 3754/ NSCI 3154	Cell Biology (Rose Hill students take BISC; Lincoln Center students take NSCI)	
BISC 3893	Introduction to Virology	
BISC 4530	Cancer Biology and Signaling	
CHEM 3621 & CHEM 3631	Physical Chemistry I and Physical Chemistry Lab I <sup>1</sup>	
CHEM 3622 & CHEM 3632	Physical Chemistry II and Physical Chemistry Lab II <sup>1</sup>	
CHEM 3721 or CHEM 3722	Quantitative Analysis or Instrumental Analysis	
CHEM 4241	Biomimetic Chemistry	
CHEM 4621	Bionanotechnology and Introduction to Nanomedicine	
NSCI 4081	Neurochemistry	

<sup>1</sup> Only one Physical Chemistry sequence (CHEM 3621 Physical Chemistry I and CHEM 3631 Physical Chemistry Lab I or CHEM 3622 Physical Chemistry II and CHEM 3632 Physical Chemistry Lab II) may count towards the major.

### American Chemical Society (ACS) track

Course	Title	Credits
<b>Required Courses</b>		
CHEM 4221 & CHEM 4231	Biochemistry I and Biochemistry Lab I	4
CHEM 4222	Biochemistry II	3
CHEM 3721 or CHEM 3722	Quantitative Analysis or Instrumental Analysis	4
CHEM 4422	Inorganic Chemistry	3
CHEM 4030	Chemistry Seminar (taken in both semesters of junior and senior years, four times total)	0
Select one of the following: <sup>1</sup>		6
CHEM 3621 & CHEM 3631	Physical Chemistry I and Physical Chemistry Lab I	
CHEM 3622 & CHEM 3632	Physical Chemistry II and Physical Chemistry Lab II	
Select one of the following (Rose Hill students take BISC; Lincoln Center students take NSCI):		3 to 5
BISC 2539 & BISC 2549	General Genetics and General Genetics Lab	
NSCI 3133	Genetics Lecture	
Select one of the following (Rose Hill students take BISC; Lincoln Center students take NSCI):		3 to 5
BISC 3752	Molecular Biology	
NSCI 4176 & NSCI 4876	Molecular Biology Lecture and Molecular Biology Lab	
<b>Elective Courses</b>		
Select one of the following:		3 to 5
BISC 3132 & BISC 3142	Human Physiology and Human Physiology Lab	
BISC 3754/ NSCI 3154	Cell Biology (Rose Hill students take BISC; Lincoln Center students take NSCI)	
BISC 3893	Introduction to Virology	
BISC 4530	Cancer Biology and Signaling	
CHEM 3141	Methods of Biochemical Research (also fulfills Eloquentia Perfecta 3 requirement for the Core Curriculum)	
CHEM 4241	Biomimetic Chemistry	
CHEM 4251	Physical and Computational Models of Biochemical Systems	
CHEM 4621	Bionanotechnology and Introduction to Nanomedicine	
NSCI 4081	Neurochemistry	

<sup>1</sup> Only one Physical Chemistry sequence (CHEM 3621 Physical Chemistry I and CHEM 3631 Physical Chemistry Lab I or CHEM 3622 Physical Chemistry II and CHEM 3632 Physical Chemistry Lab II) may count towards the major.