

BIOCHEMISTRY

Phone: (845) 257-3790

Location: Coykendall Science Building Room 105

Web address: www.newpaltz.edu/biochemistry

The Departments of Biology and Chemistry offer an interdisciplinary major in Biochemistry, leading to a Bachelor of Science degree. The Biochemistry program provides students with a firm foundation in both biology and chemistry, extensively utilizing course offerings from both departments. The curricular requirements are outlined below.

Minimum grade requirements:

- A minimum grade of C- is required to advance from CHE201 General Chemistry I to CHE202 General Chemistry II, from CHE202 General Chemistry II to CHE318 Organic Chemistry I, and from CHE318 Organic Chemistry I to CHE319 Organic Chemistry II.
- A minimum grade of C- in CHE319 Organic Chemistry II is required to enroll in BCM461 Biochemistry 1.
- A minimum grade of C- is required to advance from BIO201 General Biology I to BIO202 General Biology II and from BIO202 General Biology II to BIO320 Genetics.
- A minimum grade of C- in BIO320 Genetics is required to advance to BCM360 Protein Structure and Function and most upper-division biology courses, including those in the Biochemistry major (BIO350 General Microbiology, BIO358 Molecular Biology, BIO359 Cell Biology, BIO370 Animal Physiology, BIO413 Developmental Biology).
- A minimum grade of C- in MAT251 Calculus I is required to enroll in MAT252 Calculus II and in PHY201 General Physics 1.

73-74 credits

Code	Title	Credits
Required Biochemistry Courses (12 Credits)		
BCM360	Protein Structure and Function	4
BCM461	Biochemistry 1	3
BCM463	Biochemistry Lab	1
BCM470	Biochemistry 2	3
BCM475	Experimental Biochemistry	1
Required Biology Courses (16 Credits)		
BIO201 & BIO211	General Biology I and Gen Bio 1 Lab	4
BIO202 & BIO212	General Biology II and Gen Bio 2 Lab	4
BIO320 & BIO321	Genetics and Genetics Lab	4
BIO358	Molecular Biology	4
Required Chemistry Courses (16 Credits)		
CHE201 & CHE211	General Chemistry I and General Chemistry I Lab	4
CHE202 & CHE212	General Chemistry II and General Chemistry II Lab	4
CHE318 & CHE306	Organic Chemistry I and Organic Chemistry I Lab	4
CHE319 & CHE309	Organic Chemistry II and Organic Chemistry II Lab	4
Biology Elective (4 Credits)		

Select one of the following: 4

BIO350 General Microbiology

BIO359 Cell Biology

BIO370 Animal Physiology

BIO413 Developmental Biology

Chemistry Elective (3-4 Credits)

Select one of the following: 3-4

CHE303 Introduction to Analytical Chemistry

CHE314 Inorganic Chemistry

CHE321 Physical Chemistry I

CHE322 Physical Chemistry II

Additional Approved Electives (6 Credits)

Select a minimum 6 credits (may be from the above lists, independent study, or otherwise approved by advisor) 6

Required Cognates (16 Credits)

MAT251 Calculus I 4

MAT252 Calculus II 4

PHY201
& PHY211 General Physics 1
and Physics 1 Laboratory 4

PHY202
& PHY212 General Physics 2
and General Physics 2 Lab 4

Total Credits 73-74

Biochemistry – See [Biology](#) and [Chemistry](#) faculty lists