

BIOCHEMISTRY, B.S.

The B.S. biochemistry degree provides excellent academic and laboratory preparation for many careers and allows flexibility to incorporate pre-requisite courses in biology, psychology and physics required for admission to medical, pharmacy and dental schools. This degree can be ACS certified with the completion of CHE 242 Inorganic Chemistry, CHE 244L Inorganic Chemistry Laboratory.

Code	Title	Credits
General Education Requirement (http://catalog.niagara.edu/undergraduate/curriculum/foundation-courses/)		
PHY 121 & PHY 123L	General Physics and General Physics	4
MAT 111	Calculus I	4
MAT 112	Calculus II	4
Major Requirement ²		
CHE 111 & CHE 113L	General Chemistry I and General Chemistry Laboratory I	4
CHE 112 & CHE 114L	General Chemistry II and General Chemistry Laboratory II	4
CHE 221 & CHE 223L	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHE 222 & CHE 224L	Organic Chemistry II and Organic Chemistry Laboratory II	4
CHE 227 & CHE 229L	Analytical Chemistry and Analytical Chemistry Laboratory	4
CHE 331 & CHE 333L	Physical Chemistry I and Physical Chemistry Laboratory I	4
CHE 345 & CHE 347L	Biochemistry I and Biochemistry Laboratory I	4
CHE 346 & CHE 348L	Biochemistry II and Biochemistry Laboratory II	4
<i>Biochemistry Elective</i>		
Select one of the following:		3-4
CHE 467 & CHE 469	Career Seminar and Written and Oral Reports	
CHE 449L & CHE 450L	Senior Research and Senior Research	
BIO 121 & BIO 123L	General Biology I and Gen Biology Lab I	
BIO 122 & BIO 124L	General Biology II and Gen Biology Lab II	
PHY 122 & PHY 124L	General Physics and General Physics	
<i>Other Courses</i>		
Science elective (p. 1)		3
Advised elective		3
Total Credits		53-54

¹ All Niagara University students entering as freshmen are required to take the one credit Niagara University Beginning seminar course (NUB 102 NU Beginnings) in addition to the 20 general education requirements.

² Except for extraordinary circumstances, students majoring in chemistry and biochemistry are expected to complete major program requirements in fall and spring semesters.

Science Electives

Science electives should be chosen from the following list of courses:

Code	Title	Credits
CHE 332	Physical Chemistry II	3
CHE 338	Instrumental Analysis	3
CHE 350	Spec Topics:	4
CHE 403	Honors Thesis I ¹	3
CHE 404	Honors Thesis II	3
CHE 435	Biophysical Chemistry	3
CHE 441	Physical Chemistry III: Advanced	3
CHE 443	Advanced Organic Chemistry	3
CHE 446	Physical Organic Chemistry	3
CHE 494	Chemistry Internship	6
CHE 495	Chemistry Internship	3
CHE 496	Chemistry Internship	3
BIO 212	Microbiology	3
BIO 334	Cell Biology ²	4
BIO 436	Human Genetics	3
MAT 102 & MAT 202	Intro Statistics and Statistics II	6