

BIOLOGY-CHEMISTRY MAJOR

Biology-Chemistry B.S.

The interdepartmental major in Biology-Chemistry has been designed for those students whose academic needs and interests include both biology and chemistry. The major was instituted because a large segment of contemporary scientific investigation lies at the intersection of these two fields. Areas well served by this preparation include medicine, dentistry, and graduate disciplines such as biochemistry, physiology, and molecular biology. This major earns a Bachelor of Science degree.

LOWER-DIVISION REQUIREMENTS

COURSE	TITLE	UNITS
BIO 210	Cell Biology and Biochemistry	4
BIO 215	Animal Biology	4
CHE 152	General Chemistry I	4
CHE 153	General Chemistry II	4
CHE 211	Analytical Chemistry	2
CHE 295	Organic Chemistry I	5
PHY 141	General Physics I	4, 4
	AND	
PHY 142	General Physics II	
	OR	
PHY 241	University Physics I	4, 4
	AND	
PHY 242	University Physics II	
MTH 144	Calculus with Applications	4
	TOTAL	35

UPPER-DIVISION REQUIREMENTS

COURSE	TITLE	UNITS
BIO 345	Genetics	4
BIO 380	Molecular Biology	3
BIO 497	Biology Seminar	1
CHE 300	Organic Chemistry II	2
CHE 325	Physical Chemistry I	5
CHE 351	Organic Qualitative Analysis	2
CHE 466	Advanced Inorganic Chemistry	2
CHE 326	Physical Chemistry II	2
	OR	
CHE 370	Instrumental Analysis	
	OR	
CHE 453	Advanced Organic Chemistry	
BIO 450	Advanced Biochemistry	4
	OR	
CHE 450	Advanced Biochemistry	

Three courses from:

BIO 300	Biomathematics and Bioinformatics	3
BIO 315	Microbiology	3
BIO 350	Advanced Cell Biology	3
BIO 390	Immunology	3
BIO 400	Developmental Biology	3
BIO 420	Vertebrate Physiology	3
	TOTAL	34