

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
AND	
PHY 142 General Physics II	
OR	
PHY 241 University Physics I	4
AND	
PHY 242 University Physics II	
MTH 144 Calculus with Applications	4
TOTAL	36

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	2
OR	
CHE 450 Advanced Biochemistry	
	4
<i>Three courses from:</i>	
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