

BIOCHEMISTRY (B.A.)

The Bachelor of Arts in Biochemistry degree is a degree option for students interested in science at the intersection of biology and chemistry. It was developed especially for students interested in attending a health professional school, such as medical, dental, veterinary medicine, or pharmacy. It provides students core knowledge in biochemistry, but requires fewer courses in the major than the Bachelor of Science track, allowing students the flexibility to explore other disciplines, and providing the well-rounded educational experience that many professional schools seek in applicants.

Biochemistry (B.A.) majors complete a minimum of 120 credits to earn a bachelor's degree: 49–51 credits of core courses (<https://catalog.salve.edu/undergraduate/curriculum-degree-programs/>), 54 credits (14 courses) in their major, and 15–17 elective credits:

Code	Title	Credits
Required Chemistry and Biology Courses		
CHM-113	General Chemistry I	4
CHM-114	General Chemistry II	4
BIO-112	General Biology II	4
BIO-220	Cell Biology and Chemistry	4
CHM-205	Organic Chemistry I	4
CHM-206	Organic Chemistry II	4
BCH-403	Biochemistry	4
BCH-404	Advanced Biochemistry	4
CHM-410	Topics in Chemistry and Research Capstone	3
Select one of the following Chemistry courses:		4
CHM-305	Physical Chemistry I	
CHM-408	Inorganic Chemistry	
CHM-301	Analytical Chemistry	
CHM-309	Instrumental Analysis	
Select one of the following Chemistry Electives:		3
CHM-425	Chemistry of Proteins	
CHM-430	Molecular Spectroscopy of Bio-Macromolecules	
CHM-435	Biophysical Chemistry	
CHM-440	Chemical and Enzyme Kinetics	
CHM-445	Medicinal Natural Products	
CHM-450	Total Synthesis of Natural Products	
CHM-455	Organic Chemistry of Drug Design and Drug Addition	
CHM-460	Bioinorganic Chemistry	
CHM-465	Metals in Cells	
Mathematics and Physics		
MTH-195	Calculus I	4
MTH-196	Calculus II	4
PHY-205	Principles of Physics I	4
Total Credits		54

Degree Plan for Biochemistry (B.A.)

Course	Title	Credits
First Year		
Fall		
UNV-101 & FYT-101	University Seminar and First Year Studio	4

CHM-113	General Chemistry I	4
MTH-195	Calculus I	4
Core Course		3
Credits		15
Spring		
Core Course		3
UNV-102	University Seminar II	3
BIO-112	General Biology II	4
CHM-114	General Chemistry II	4
MTH-196	Calculus II	4
Credits		18
Second Year		
Fall		
RTS-225 or PHL-225	The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life	3
BIO-220	Cell Biology and Chemistry	4
CHM-205	Organic Chemistry I	4
Core Course		3
Core Course		3
Credits		17
Spring		
RTS-225 or PHL-225	The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life	3
Core Course		3
Core Course		3
Select one CHM Requirement:		4
CHM-305	Physical Chemistry I	
CHM-408	Inorganic Chemistry	
CHM-301	Analytical Chemistry	
CHM-309	Instrumental Analysis	
CHM-206	Organic Chemistry II	4
Credits		17
Third Year		
Fall		
Elective		3
BCH-403	Biochemistry	4
PHY-205	Principles of Physics I	4
Elective		3
Core Course		3
Credits		17
Spring		
Elective		3
Core Course		3
Core Course		3
Elective		3
BCH-404	Advanced Biochemistry	4
Credits		16
Fourth Year		
Fall		
CHM-410	Topics in Chemistry and Research Capstone	3
Elective		3
Elective		3
Select one CHM Requirement:		3
CHM-425	Chemistry of Proteins	
CHM-430	Molecular Spectroscopy of Bio-Macromolecules	
CHM-435	Biophysical Chemistry	
CHM-440	Chemical and Enzyme Kinetics	
CHM-445	Medicinal Natural Products	
CHM-450	Total Synthesis of Natural Products	
CHM-455	Organic Chemistry of Drug Design and Drug Addition	

2 Biochemistry (B.A.)

CHM-460	Bioinorganic Chemistry	
CHM-465	Metals in Cells	
Elective		3
Credits		15
Spring		
Elective		3
Select one CHM Requirement:		3
CHM-425	Chemistry of Proteins	
CHM-430	Molecular Spectroscopy of Bio-Macromolecules	
CHM-435	Biophysical Chemistry	
CHM-440	Chemical and Enzyme Kinetics	
CHM-445	Medicinal Natural Products	
CHM-450	Total Synthesis of Natural Products	
CHM-455	Organic Chemistry of Drug Design and Drug Addition	
CHM-460	Bioinorganic Chemistry	
CHM-465	Metals in Cells	
Elective		3
Elective		3
Elective		3
Credits		15
Total Credits		130

¹ One each semester.