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, including 41–44 credits of core courses (https://catalog.salve.edu/undergraduate/curriculum-degree-programs/) and 54 credits (14 courses) in their major.

Code	Title	Credits
Required Chemistry and Biology Courses		
BIO-113	Biology I	4
CHM-113	General Chemistry I	4
CHM-114	General Chemistry 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		
FYT-101	First Year Studio	1
UNV-101	University Seminar	3
CHM-113	General Chemistry I	4
MTH-195	Calculus I	4
BIO-113	Biology I	4
	Credits	**16**
Spring		
UNV-102	University Seminar II	3
CHM-114	General Chemistry II	4
MTH-196	Calculus II	4
Core Course		
Core Course		3
	Credits	**14**
Second Year		
Fall		
GST-098	Sophomore Studio [1]	1
RTS-225 or PHL-225	The Quest for the Ultimate: Dialogue with Global Religious Traditions [2] or Quest for the Good Life	3
BIO-220	Cell Biology and Chemistry	4
CHM-205	Organic Chemistry I	4
Core Course		3
	Credits	**15**
Spring		
RTS-225 or PHL-225	The Quest for the Ultimate: Dialogue with Global Religious Traditions [2] or Quest for the Good Life	3
CHM-206	Organic Chemistry II	4
Select one CHM Requirement:		4
CHM-305	Physical Chemistry I	
CHM-408	Inorganic Chemistry	
CHM-301	Analytical Chemistry	
CHM-309	Instrumental Analysis	
Core Course		3
Core Course		3
	Credits	**17**
Third Year		
Fall		
BCH-403	Biochemistry	4
PHY-205	Principles of Physics I	4
Core Course		3
Elective		3
Elective		3
	Credits	**17**
Spring		
BCH-404	Advanced Biochemistry	4
Core Course		3
Core Course		3
Elective		3
Elective		3
	Credits	**16**
Fourth Year		
Fall		
CHM-410	Topics in Chemistry and Research Capstone	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**
Spring		
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	**12**
	Total Credits	**122**

[1] This weekend workshop may be taken in either the fall or spring semester of sophomore year.

[2] One each semester.