

John Carroll University Chemistry Department

B.S. Chemistry with Biochemistry Concentration and Study Abroad Study Plan (2017-2019 Bulletin)

First Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH141 General Chemistry I*	4	X			CH142 General Chemistry II*	4	X		
CH143 General Chemistry Lab I*	1	X			CH144 General Chemistry Lab II*	1	X		
MT135 Calculus / Analytic Geometry I	4	X			MT136 Calculus / Analytic Geometry II	4	X		
EN125 Seminar on Academic Writing	3		X		COMM125 Speech Communications	3		X	
BL155 Principles of Biology I	3	X			BL156 Principles of Biology II	3	X		
BL157 Principles of Biology Lab I	1	X			BL158 Principles of Biology Lab II	1	X		
Total Credit Hours	16				Total Credit Hours	16			

Second Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH221 Organic Chemistry I	3	X			CH222 Organic Chemistry II	3	X		
CH223 Organic Chemistry Lab I	1	X			CH224 Organic Chemistry Lab II	1	X		
PH125 General Physics I	3	X			CH261 Analytical Chemistry (QA)	3	X	X	
PH126 General Physics Lab I	1	X			CH263 Analytical Chemistry Lab (QA)	1	X	X	
Career or Program Electives	6	X	X		PH126 General Physics II	3	X		
Creative and Performing Arts (CAPA)	1-3		X		PH126L General Physics Lab II	1	X		
					BL213 Genetics**	4	X		X
Total Credit Hours	15				Total Credit Hours	16			

Third Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH363 Physical Chemistry I	3	X			Study Abroad Semester				
CH367 Physical Chemistry I Lab	2	X			Humanities Course	3		X	
CH435 Biochemistry I	3	X			Social Sciences Course	3		X	
CH437 Biochemistry Laboratory	1	X			Core, Career or Program Elective	6	X	X	X
Engaging the Global Community (EGC)	3		X		CH or BL Elective	3	X		
TRS Course	3		X						
Total Credit Hours	15				Total Credit Hours	15			

Fourth Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH or BL Elective**	3	X			CH Elective**	3	X		
Issues in Social Justice Course (ISJ)	3		X		CH436 Biochemistry II	3	X		
Language Requirement	3		X		Language Requirement	3		X	
Philosophy Values/Society (PLVS)	3		X		TRS Course	3		X	
Linked Pair of Courses	6		X		Philosophy Knowledge/Reality (PLKR)	3		X	
Total Credit Hours	18				Total Credit Hours	15			

If you are planning to attend graduate school or a health professions program, take the GRE or MCAT in summer between years 3 and 4 and begin submitting applications this fall.

Total CH Credit Hours Required: 42 Total Credit Hours Required to Graduate: 120

Notes:

* Well prepared students may substitute the CH141-144 sequence with CH151/153 - Chemical Principles and Lab in the Fall Semester

471 and PS426 and others by petition.

CH398, or CH399D (with 3 credits of CH399). One of these should be taken in the senior year.

*Please consult your academic advisor to address specific needs of your major, minor, and/or concentration.