

John Carroll University Chemistry Department

B.S. Chemistry with ACS certification Study Plan

First Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH141 General Chemistry 1*	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	
TRS Course	3		X		Philosophy Values/Society (PLVS)	3		X	
Total Credit Hours	15				Total Credit Hours	15			

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	3	X		
PH125L General Physics Lab I	1	X			CH263 Analytical Chemistry Lab (QA)	1	X	X	
Engaging the Global Community (EGC)	3		X		PH126 General Physics II	3	X		
Language Requirement	3		X		PH126L General Physics Lab II	1	X		
Creative and Performing Arts (CAPA)	1-3		X		Language Requirement	3		X	
Total Credit Hours	15				Total Credit Hours	15			

Third Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH363 Physical Chemistry I	3	X			CH366 Physical Chemistry II	3	X		
CH367 Physical Chemistry I Lab	2	X			CH399 Undergraduate Research	1	X		
CH399 Undergraduate Research	1	X			CH478 Chemistry Seminar	0	X		
Philosophy Knowledge/Reality (PLKR)	3		X		Career or Program Electives	3	X	X	
TRS Course	3		X		Linked Pair of Courses	6		X	
Issue in Social Justice Course (ISJ)	3		X		CH431 General Biochemistry	4	X		
Total Credit Hours	15				Total Credit Hours	17			

Fourth Year

Fall Semester	Credits	Major	Core	Other	Spring Semester	Credits	Major	Core	Other
CH441 Instrumental Analysis	3	X			Career or Program Electives	9	X		
CH443 Instrumental Analysis Lab**	2	X			CH Elective	3	X		
CH399 Undergraduate Research	1	X			CH481 Inorganic Chemistry	3	X		
Humanities Course	3		X		CH482 Inorganic Chemistry	1	X		
Social Sciences Course	3		X						
CH Elective or Career Elective	3	X	X						
Total Credit Hours	15				Total Credit Hours	16			

If you are planning to attend graduate school, take the GRE in summer 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

** CH443 will satisfy the Core Requirements for Capstone, Advanced Writing, and Oral Presentation within the major (CAP, AW,OP)

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