

Bachelor of Arts in Chemistry with a Concentration in Biochemistry

Chemistry (CHEM)

General Chemistry lecture and lab	<input type="checkbox"/> 211 (3)	<input type="checkbox"/> 213 (1)	<input type="checkbox"/> 212 (3)	<input type="checkbox"/> 214 (1) (satisfies Natural Science requirement)
Organic Chemistry lecture and lab	<input type="checkbox"/> 313 (3)	<input type="checkbox"/> 315(2)	<input type="checkbox"/> 314 (3)	<input type="checkbox"/> 318 (2)
Elementary Quantitative Analysis	<input type="checkbox"/> 321 (4)			
Physical Chemistry lecture and lab	<input type="checkbox"/> 331 (3)	<input type="checkbox"/> 336 (2)		
Bioinorganic Chemistry	<input type="checkbox"/> 446 (3)			
Biochemistry I and II	<input type="checkbox"/> 463 (4)	<input type="checkbox"/> 464 (3)		
Biochemistry Lab	<input type="checkbox"/> 465 (2)			

Biology (BIOL)

Cell Structure and Function	<input type="checkbox"/> 213 (4)
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Mathematics (MATH)

Analytic Geometry and Calculus	<input type="checkbox"/> 113 (4)	<input type="checkbox"/> 114 (4)	(satisfies Quantitative Reasoning requirement)
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Statistics (STAT)

Introductory Statistics	<input type="checkbox"/> 250 (3)
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Physics (PHYS)

College Physics	<input type="checkbox"/> 243 (3)	<input type="checkbox"/> 245 (3)
College Physics Lab	<input type="checkbox"/> 244 (1)	<input type="checkbox"/> 246 (1)

Mason Core (approved courses are listed in the University Catalog)

Written Communication	<input type="checkbox"/> ENGH 101 (3)	<input type="checkbox"/> ENGH 302 (3)
Oral Communication	<input type="checkbox"/> COMM 100 or 101 (3)	
Western Civilization/World History	<input type="checkbox"/> HIST 100 or 125 (3)	
Information Technology	<input type="checkbox"/> ___ (3)	
Literature	<input type="checkbox"/> ___ (3)	
Fine Arts	<input type="checkbox"/> ___ (3)	
Social and Behavioral Sciences	<input type="checkbox"/> ___ (3)	
Global Understanding	<input type="checkbox"/> ___ (3)	
Synthesis	<input type="checkbox"/> ___ (3)	

COS Requirements (approved courses are listed in the University Catalog under Chemistry BA requirements)

Social and Behavioral Sciences	<input type="checkbox"/> ___ (3)
Philosophy or Religious Studies	<input type="checkbox"/> ___ (3)
Foreign Language Proficiency	<input type="checkbox"/> ___ (0-12) *
Non-Western Culture	<input type="checkbox"/> ___ (0-3) **

Electives from any area except PRLS/PHED (7-22)

* Students who are already proficient in a second language may be eligible for a waiver of this requirement. Additional information on waivers can be found through the COS Office of Academic and Student Affairs.

** Students who can document attendance at a native school in a non-western country for at least four years may request a waiver from this requirement through the CHSS Undergraduate Academic Affairs Office

TOTAL CREDITS REQUIRED: 120 Minimum (of which 45 must be upper-division \geq 300 level); overall GPA \geq 2.00; major requirements GPA \geq 2.30; maximum of two courses of CHEM with a "D" grade. All CHEM prerequisite courses require a grade of C or better. 9/21/16

Sample Schedule

BA: Concentration in Biochemistry

FRESHMAN YEAR (29 CR)

Semester 1

CHEM 211, 213 General Chemistry I	4
MATH 113 Anal. Geom. & Calc. I	4
BIOL 213 Cell Structure & Function	4
ENGH 101	3
	15

Semester 2

CHEM 212, 214 General Chemistry II	4
MATH 114 Anal. Geom. & Calc. II	4
HIST requirement	3
IT Requirement	3
	14

SOPHOMORE YEAR (28 CR)

Semester 3

CHEM 313 Organic Chemistry I	3
CHEM 315 Organic Chemistry Lab I	2
PHYS 243 College Physics I	3
PHYS 244 College Physics Lab I	1
STAT 250 Introductory Statistics	3
COMM requirement	3
	15

Semester 4

CHEM 314 Organic Chemistry II	3
CHEM 318 Organic Chemistry Lab II	2
CHEM 321 Elementary Quant. Anal.	4
PHYS 245 College Physics II	3
PHYS 246 College Physics Lab II	1
	13

JUNIOR YEAR (32 CR)

Semester 5

CHEM 463 General Biochemistry I	4
CHEM 331 Physical Chemistry I	3
ENGH 302	3
Global Understanding requirement	3
Foreign Language	3
	16

Semester 6

CHEM 464 General Biochemistry II	3
CHEM 465 General Biochemistry Lab	2
CHEM 336 Physical Chemistry Lab I	2
Non-Western Culture requirement	3
Literature requirement	3
Foreign Language	3
	16

SENIOR YEAR (31 CR)

Semester 7

CHEM 446 Bioinorganic Chemistry	3
Foreign Language	3
Social/Behavioral Science req. I	3
Fine Arts requirement	3
Elective	3
	15

Semester 8

Synthesis requirement	3
Foreign Language	3
Philosophy/Religious Studies req.	3
Social/Behavioral Science req. II	3
Elective	4
	16