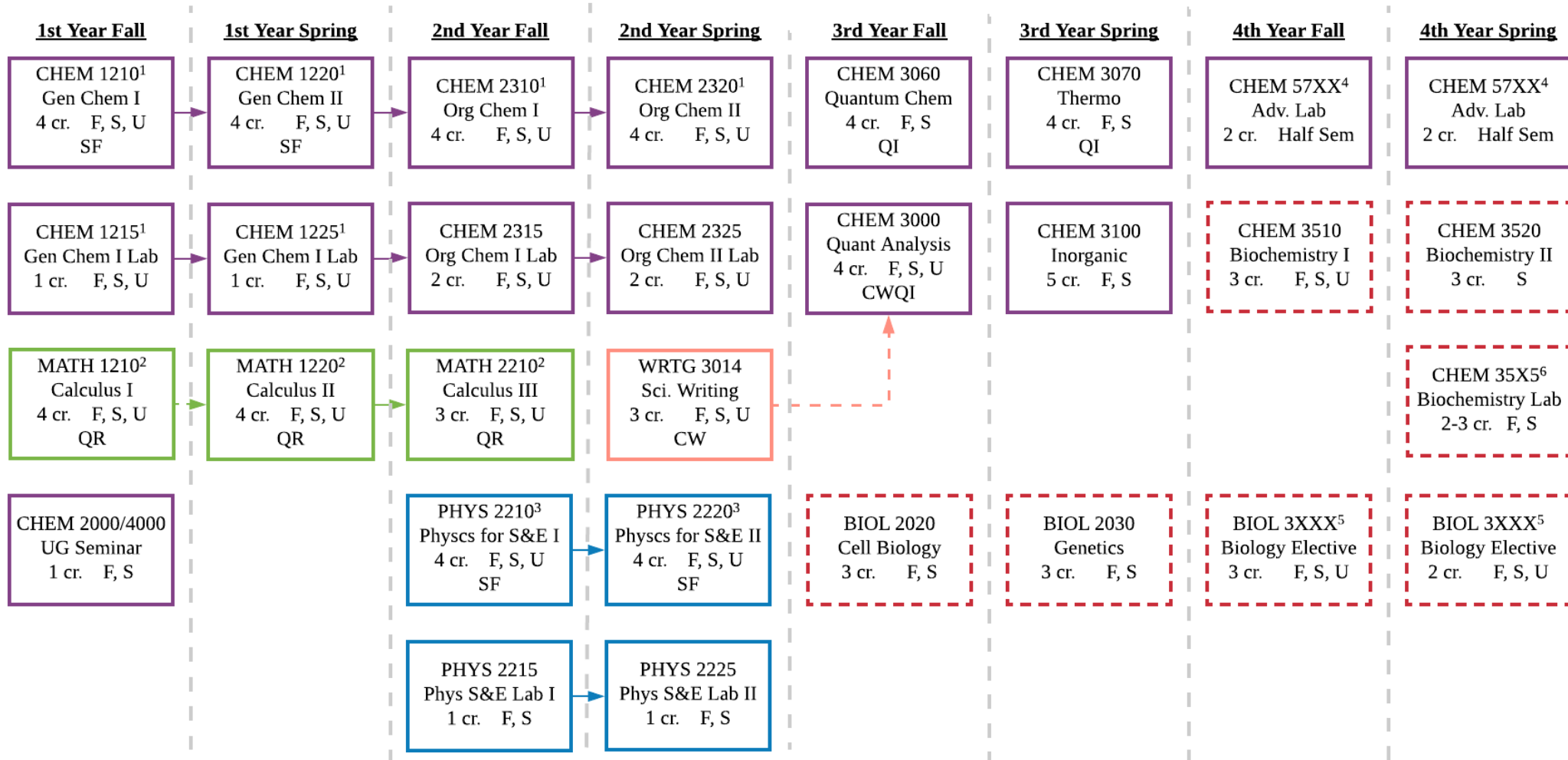


Chemistry Course Requirements - Biological Emphasis (2018-2019)

The Biological emphasis has more biology electives and less math. Satisfies many of the prerequisites for students planning to attend health related post-bachelor's schools, such as medical, dental, pharmaceutical, or wanting to pursue graduate school in medical or biological chemistry.



- Honors versions of available. Sequence starts in the Fall. Must apply to be in the class.
- Talk with advisors to see how other calculus sequences could fulfill the calculus requirement.
- Honors versions are PHYS 3210 + 3220.
- 2 upper division labs required. Fall options: CHEM 5710 (org) 1st half, CHEM 5730 (inorg) 2nd half. Spring options: CHEM 5700 (ana) 1st half, CHEM 5720 (phys) 2nd half, CHEM 3200 (radiochem) + NUCL 4000 Spring + Fall.
- Need at least 5 credits of biology-related electives. Check Degree Audit to see accepted biology electives. Contact chemistry advisors to determine if a course not listed could fulfill this requirement. CHEM 4800 (research), CHEM 4999 (Honors Thesis), or CHEM 4965 (internship) can waive 2 credits.
- For biochemistry labs, students can take CHEM 3515 (Biochemistry Lab, Spring), 3525 (Molecular Biology of DNA Lab, Fall), or CHEM 5750 (Adv. Chemical Biology Lab, 1st half Spring)

Chemistry Course Requirements – Biological Emphasis (2018-19)

The Biological emphasis has more biology electives and less math. Satisfies many of the prerequisites for students planning to attend health related post-bachelor's schools, such as medical, dental, pharmaceutical, or wanting to pursue graduate school in medical or biological chemistry.

Biological Emphasis										
Done?	Dept.	Number	Course Name	Credit Hours	Gen Ed/ Bach Req	Prerequisites		Taught		
						Chemistry	Math/Other	F	S	U
MATH CLASSES										
<input type="checkbox"/>	MATH	1210	Calculus I ^o	4	QR		1080	x	x	x
<input type="checkbox"/>	MATH	1220	Calculus II ^o	4	QR		MATH 1210	x	x	x
<input type="checkbox"/>	MATH	2210	Calculus III ^o	4	QR		MATH 1220	x	x	x
PHYSICS CLASSES										
<input type="checkbox"/>	PHYS	2210	Physics for Sci & Eng I ^o	4	SF		MATH 1210	x	x	x
<input type="checkbox"/>	PHYS	2215	Physics Lab for Sci & Eng I	1			MATH 1210	x		
<input type="checkbox"/>	PHYS	2220	Physics for Sci & Eng II ^o	4	SF		MATH 1220 + PHYS 2210	x	x	x
<input type="checkbox"/>	PHYS	2225	Physics Lab for Sci & Eng II	1			MATH 1220 + PHYS 2210	x		
CHEMISTRY CLASSES										
<input type="checkbox"/>	CHEM	2000/4000	Undergrad Seminar	1				x	x	
<input type="checkbox"/>	CHEM	1210 + 1215	General Chemistry I ^o + Lab	4 + 1	SF		MATH 1050	x	x	x
<input type="checkbox"/>	CHEM	1220 + 1225	General Chemistry II ^o + Lab	4 + 1	SF		CHEM 1210 + 1215	x	x	x
<input type="checkbox"/>	CHEM	2310 + 2315	Organic Chemistry I ^A + Lab	4 + 2			CHEM 1220 + 1225	x	x	x
<input type="checkbox"/>	CHEM	2320 + 2325	Organic Chemistry II ^A + Lab	4 + 2			CHEM 2310 + 2315	x	x	x
<input type="checkbox"/>	CHEM	3000	Quantitative Analysis	4	QI, CW		MATH 1220	x	x	x
<input type="checkbox"/>	CHEM	3060	Quantum Chemistry & Spect	4	QI		MATH 2210 + PHYS 2220	x		
<input type="checkbox"/>	CHEM	3070	Thermodynamics & Kinetics	4	QI		MATH 2210 + PHYS 2220	(x)	x	
<input type="checkbox"/>	CHEM	3100	Inorganic Chemistry	5			CHEM 1220	x	x	
<input type="checkbox"/>	CHEM	3510	Biological Chemistry I	3			CHEM 2320 + 3060	x	x	x
<input type="checkbox"/>	CHEM	3510	Biological Chemistry II	3			CHEM 2310	x	x	
<input type="checkbox"/>	CHEM	5750	Biological Chemistry Lab ^φ	2			CHEM 3510			1st
<input type="checkbox"/>	WRTG	3014	Scientific Writing	3			CHEM 3510	x	x	x
ADVANCED LABS - Choose 2										
<input type="checkbox"/>	CHEM	5700	Analytical Chemistry Lab	2	CW		CHEM 3000			1st
<input type="checkbox"/>	CHEM	5710	Organic Chemistry Lab	2			CHEM 2320		1st	
<input type="checkbox"/>	CHEM	5720	Physical Chemistry Lab	2			CHEM 3060, 3070			2nd
<input type="checkbox"/>	CHEM	5730	Inorganic Chemistry Lab	2			CHEM 3100		2nd	
<input type="checkbox"/>	CHEM	3200	Radiochemistry	3						x
BIOLOGY ELECTIVES[†]: Need 5 credit hours of approved electives (see list of approved courses and DARS)										
<input type="checkbox"/>	BIOL	2020	Cell Biology	3				x	x	
<input type="checkbox"/>	BIOL	2030	Genetics	3				x	x	
<input type="checkbox"/>	BIOL									
<input type="checkbox"/>	BIOL									

o: Can take whichever calculus sequence is appropriate, talk to advisor about sequencing.

o: Honors versions are PHYS 3210 + 3220.

o: Honors versions of General Chemistry are CHEM 1211 + 1221. Sequence starts in the Fall. Must apply to be in the class.

Δ: Honors versions of Organic Chemistry are CHEM 2311 + 2321. Sequence starts in the Fall.

φ: Can also take CHEM 3515 (Biochemistry Lab) or 3525 (Molecular Biology of DNA Lab) in place of CHEM 5750, to count for 3 advanced lab credits.

†: CHEM 4800 (research), CHEM 4965 (internship), or CHEM 4999 (Honors Thesis) can count for up to 2 credit hours of biology elective