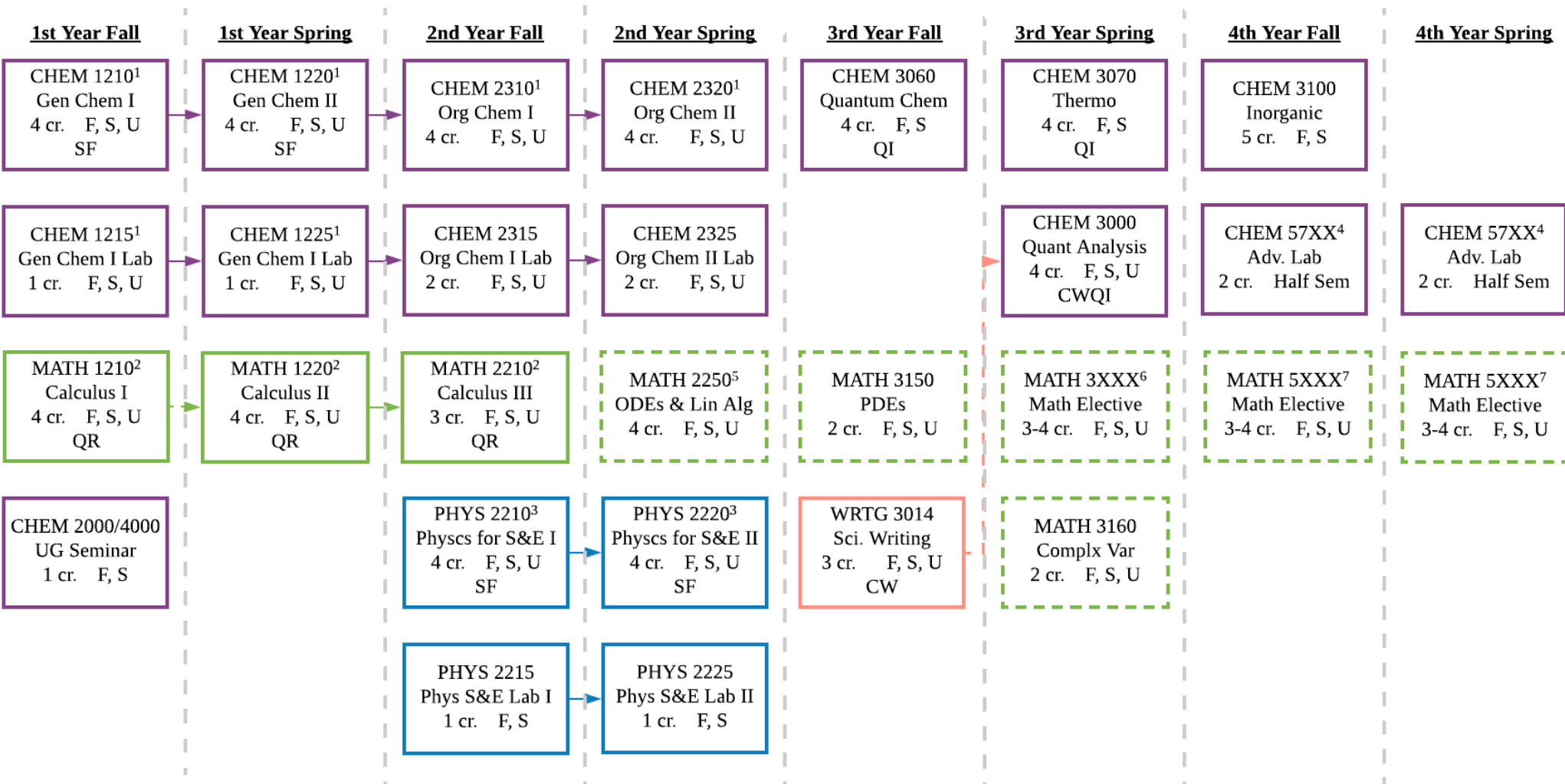


Chemistry Course Requirements - Mathematics Emphasis (2018-2019)

The Mathematics emphasis is designed for students who enjoy the mathematical aspects of chemistry. This math-intensive track will enhance students in their problem solving skills and may be of interest to those wanting to pursue a career in computational chemistry, although will give students an edge in all aspects of 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.
- MATH 2270 + 2280 are more rigorous, and will take 2 semesters to complete.
- Must take at least 3 credits of MATH 3XXX. Check Degree Audit or w/ advisor to see accepted math classes for elective credit.
- Must take at least 6 credits of MATH 5XXX. Check Degree Audit or w/ advisor to see accepted math classes for elective credit. CHEM 4800 (research), CHEM 4999 (Honors Thesis), or CHEM 4965 (internship) can waive 2 credits.

Chemistry Course Requirements – Mathematics Emphasis (2018-19)

The Mathematics emphasis is designed for students who enjoy the mathematical aspects of chemistry.. This math-intensive track will enhance students in their problem solving skills and may be of interest to those wanting to pursue a career in computational chemistry, although will give students an edge in all aspects of chemistry

Mathematics Emphasis							Taught				
Done?	Depart.	Number	Course Name	Credit Hours	Gen Ed/ Bach Req	Prerequisites	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
<input type="checkbox"/>	MATH	2250	ODE's and Linear Algebra ^o	4	QR			MATH 2210	x	x	x
<input type="checkbox"/>	MATH	3150	PDE's	2				MATH 2250	x	x	x
<input type="checkbox"/>	MATH	3160	Complex Variables	2				MATH 2250	x	x	x
<input type="checkbox"/>	MATH	3XXX		3-4			See list of approved courses and DARS				
<input type="checkbox"/>	MATH	5XXX		3-4			See list of approved courses and DARS				
<input type="checkbox"/>	MATH	5XXX ^T		3-4			See list of approved courses and DARS				
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	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	x	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		CHEM 1220	MATH 1220	x	x	x
<input type="checkbox"/>	CHEM	3060	Quantum Chemistry & Spect	4	QI		CHEM 1220	MATH 2210 + PHYS 2220	x	x	
<input type="checkbox"/>	CHEM	3070	Thermodynamics & Kinetics	4	QI		CHEM 1220	MATH 2210 + PHYS 2220	(x)	x	
<input type="checkbox"/>	CHEM	3100	Inorganic Chemistry	5			CHEM 1220 CHEM 2320 + 3060		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

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

o: MATH 2270 + 2280 are more rigorous, but will take 2 semesters to complete.

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

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.

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