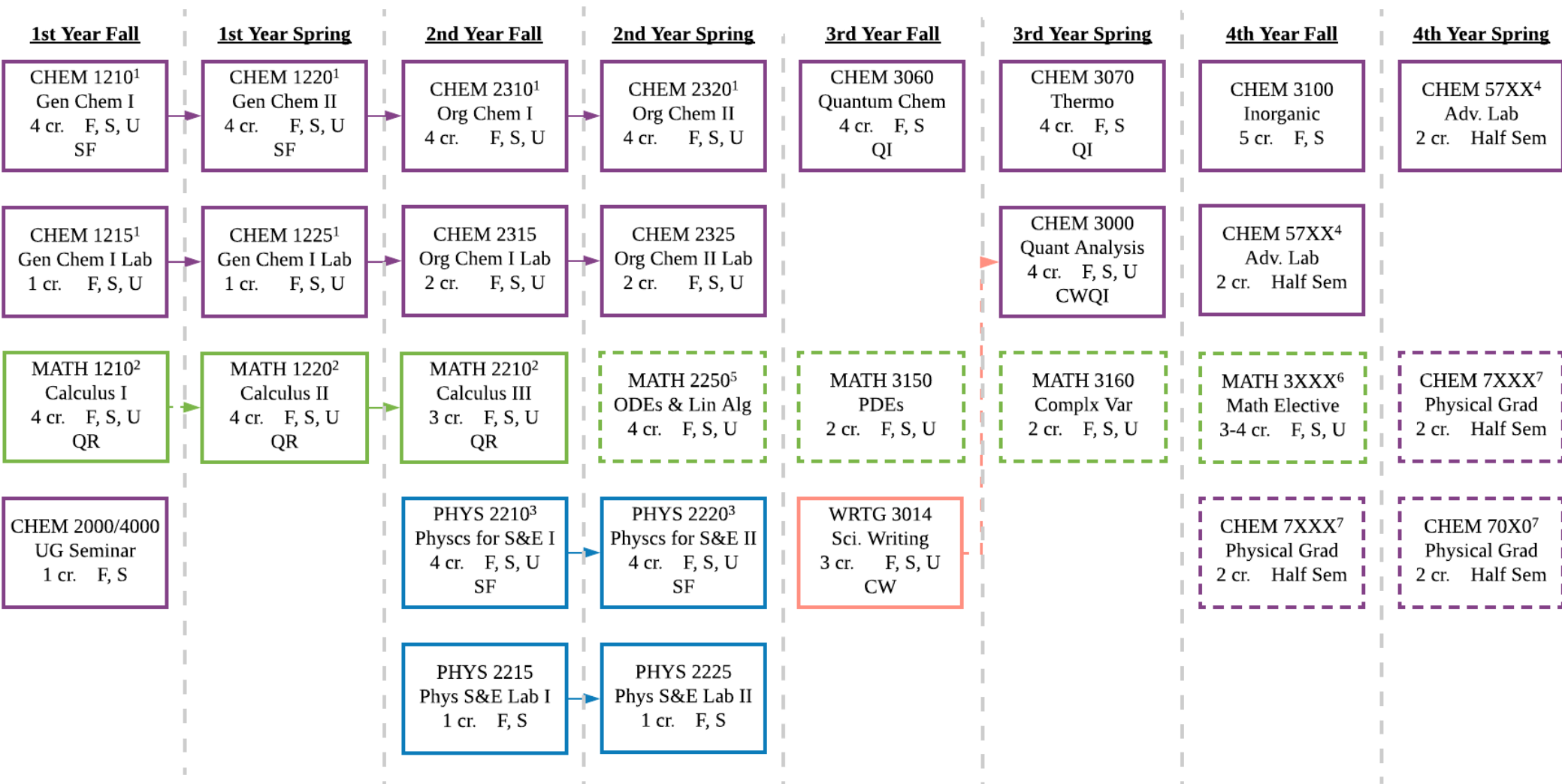


Chemistry Course Requirements - Chemical Physics Emphasis (2018-2019)

The Physics emphasis is more math-intensive and gives students the opportunity to take some graduate-level physical chemistry classes. Careers in physical chemistry allow students to discover, test, and understand the fundamental physical characteristics of a material.



- 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.
- CHEM 4800 (research), CHEM 4999 (Honors Thesis), or CHEM 4965 (internship) can waive 2 credits.

Chemistry Course Requirements – Physics Emphasis (2018-19)

The Physics emphasis is more math-intensive and gives students the opportunity to take some graduate-level physical chemistry classes. Careers in physical chemistry allow students to discover, test, and understand the fundamental physical characteristics of a material.

Physics Emphasis										
Done?	Dept.	Number	Course Name	Credit Hours	Gen Ed/ Bach Req	Prerequisites				
						Chemistry	Math/Other	Taught		
						F	S	U		
MATH CLASSES										
<input type="checkbox"/>	MATH	1210	Calculus I ^o	4	QR		MATH 1060 or 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			
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	x	x	x
<input type="checkbox"/>	CHEM	3060	Quantum Chemistry & Spect	4	QI		MATH 2210 + PHYS 2220	x	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, CHEM 2320, 3060	x	x	
<input type="checkbox"/>	WRTG	3014	Scientific Writing	3			WRTG 2010	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
PHYSICAL CHEMISTRY ELECTIVES[†]: Need 6 credit hours of approved electives (see list of approved courses and DARS)										
<input type="checkbox"/>	CHEM	70X0		2			CHEM 3060, 3070			
<input type="checkbox"/>	CHEM	70X0		2			CHEM 3060, 3070			
<input type="checkbox"/>	CHEM	70X0		2			CHEM 3060, 3070			

^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.

^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.

[†]: CHEM 4800 (research), CHEM 4965 (internship), or CHEM 4999 (Honors Thesis) can count for up to 2 credit hours.