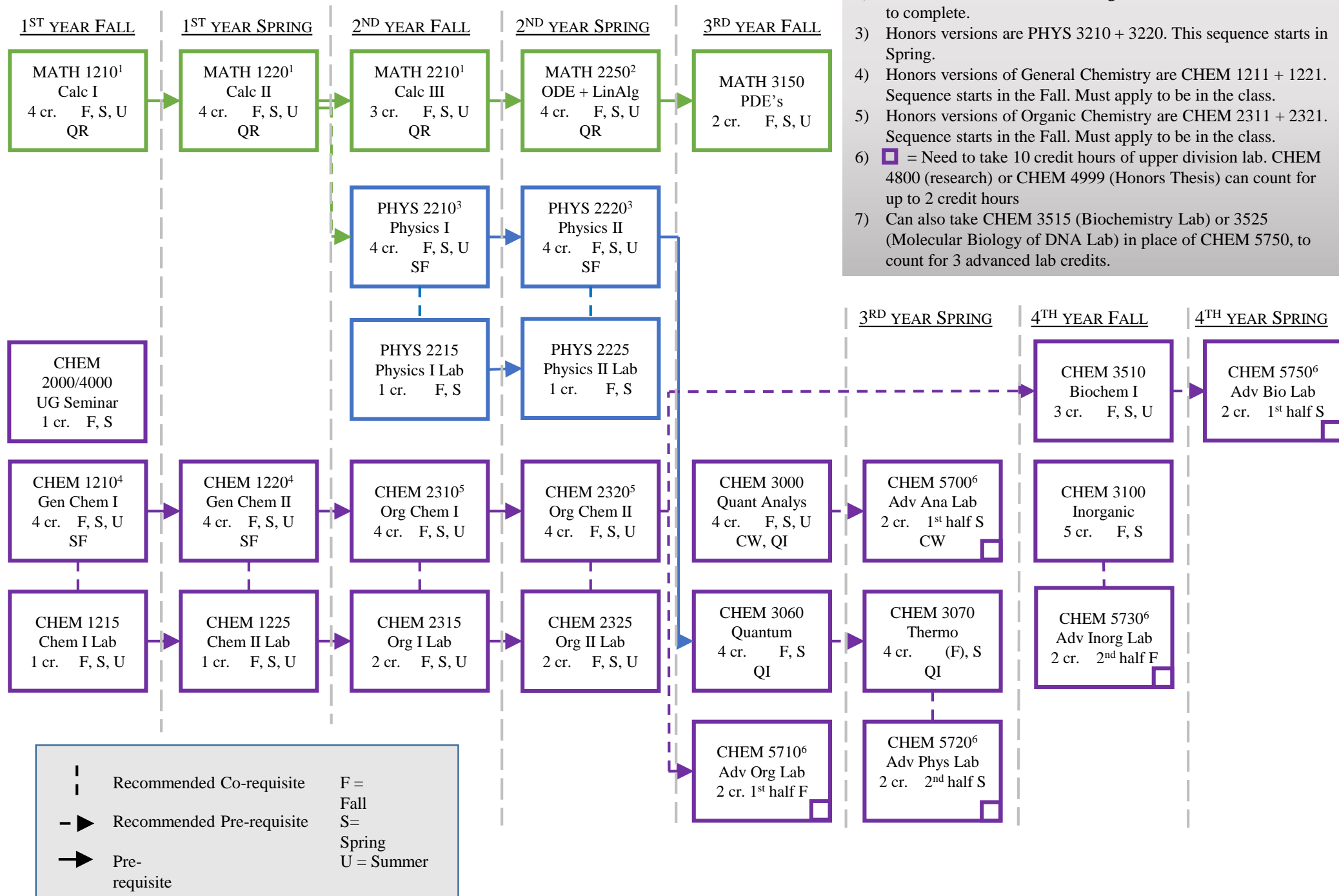


# Chemistry Course Requirements – Professional Emphasis (2016-17)

The Professional emphasis is the traditional chemistry major; this path offers an in-depth look into the many distinct areas of chemistry. Students in this emphasis are prepared to apply for many post-bachelor programs, such as graduate school, or work for a chemical company.

- 1) Can take whichever calculus sequence is appropriate, including AP Calculus (MATH 1250 & 1260) or Engineering Calculus (MATH 1310 & 1320) Must finish the sequence that was started.
- 2) MATH 2270 + 2280 are more rigorous, but will take 2 semesters to complete.
- 3) Honors versions are PHYS 3210 + 3220. This sequence starts in Spring.
- 4) Honors versions of General Chemistry are CHEM 1211 + 1221. Sequence starts in the Fall. Must apply to be in the class.
- 5) Honors versions of Organic Chemistry are CHEM 2311 + 2321. Sequence starts in the Fall. Must apply to be in the class.
- 6)  = Need to take 10 credit hours of upper division lab. CHEM 4800 (research) or CHEM 4999 (Honors Thesis) can count for up to 2 credit hours
- 7) 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.



# Chemistry Course Requirements – Professional Emphasis (2016-17)

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Professional Emphasis										
Done?	Depart.	Number	Course Name	Credit Hours	Gen Ed/ Bach Req	Prerequisites		Semester		
						Chemistry	Math/Other	F	S	U
<b>MATH CLASSES</b>										
<input type="checkbox"/>	MATH	1210	Calculus I <sup>o</sup>	4	QR		MATH 1060 or 1080	x	x	x
<input type="checkbox"/>	MATH	1220	Calculus II <sup>o</sup>	4	QR		MATH 1210	x	x	x
<input type="checkbox"/>	MATH	2210	Calculus III <sup>o</sup>	4	QR		MATH 1220	x	x	x
<input type="checkbox"/>	MATH	2250	ODE's and Linear Algebra <sup>o</sup>	4	QR		MATH 2250	x	x	x
<input type="checkbox"/>	MATH	3150	PDE's	2			MATH 2250	x	x	x
<b>PHYSICS CLASSES</b>										
<input type="checkbox"/>	PHYS	2210	Physics for Sci & Eng I <sup>o</sup>	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 <sup>o</sup>	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
<b>CHEMISTRY CLASSES</b>										
<input type="checkbox"/>	CHEM	2000/4000	Undergrad Seminar	1				x	x	
<input type="checkbox"/>	CHEM	1210 + 1215	General Chemistry I <sup>o</sup> + Lab	4 + 1	SF		MATH 1050	x	x	x
<input type="checkbox"/>	CHEM	1220 + 1225	General Chemistry II <sup>o</sup> + Lab	4 + 1	SF		CHEM 1210 + 1215	x	x	x
<input type="checkbox"/>	CHEM	2310 + 2315	Organic Chemistry I <sup>A</sup> + Lab	4 + 2			CHEM 1220 + 1225	x	x	x
<input type="checkbox"/>	CHEM	2320 + 2325	Organic Chemistry II <sup>A</sup> + Lab	4 + 2			CHEM 2310 + 2315	x	x	x
<input type="checkbox"/>	CHEM	3000	Quantitative Analysis	4	QI, CW		MATH 1220 or 1250 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"/>	CHEM	3510	Biological Chemistry I	3			CHEM 2320 BIOL 2020	x	x	x
<b>ADVANCED LABS - 10 CREDIT HOURS<sup>T</sup></b>										
<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	5750	Biological Chemistry Lab <sup>o</sup>	2			CHEM 3510			1st

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