

Chemistry Course Requirements – Mathematics Emphasis

The Mathematics emphasis is designed for students who enjoy the mathematical aspect 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 it will give students an edge in all aspects of chemistry.

1 st Fall	1 st Spring	2 nd Fall	2 nd Spring	3 rd Fall	3 rd Spring	4 th Fall	4 th Spring
Chem 1210 ¹ Gen Chem 1 4 cr. F,S,U SF	Chem 1220 ¹ Gen Chem 2 4 cr. F,S,U SF	Chem 2310 ¹ Org Chem 1 4 cr. F,S,U	Chem 2320 ¹ Org Chem 2 4 cr. F,S,U	Chem 3000 Quant Analysis 4 cr. F,S,U QI	Chem 3060 Quantum Chem 4 cr. F,S QI	Chem 3070 Thermodynamics 4 cr. F,S QI	Chem 3100 Inorganic 4 cr. S
Chem 1215 Gen Chem 1 Lab 1 cr. F,S,U SF	Chem 1225 Gen Chem 2 Lab 1 cr. F,S,U SF	Chem 2315 Org Chem 2 Lab 2 cr. F,S,U SF	Chem 2325 Org Chem 2 Lab 2 cr. F,S,U SF			Chem 57XX ³ Adv Lab 2 cr. Half Sem	
Math 1210 ² Calculus 1 4 cr. F,S,U QR	Math 1220 ² Calculus 3 4 cr. F,S,U QR	Math 2210 ² Calculus 3 3 cr. F,S,U QR	Math 2250 ⁴ ODEs & Lin Alg 4 cr. F,S,U	Math 3150 PDEs 2 cr. F,S,U	Math 3XXX ⁵ Math Elective 3-4 cr. F,S,U	Math 5XXX ⁶ Math Elective 3-4 cr. F,S,U	Math 5XXX ⁶ Math Elective 3-4 cr. F,S,U
Chem 2000/4000 ⁷ UG Seminar 1 cr. F,S		Phys 2210 Phys S&E 1 4 cr. F,S,U SF	Phys 2220 Phys S&E 2 4 cr. F,S,U SF	Wrtg 3014 Sci Writing 3 cr. F,S,U CW	Math 3160 Complex Var 2 cr. F,S,U		
		Phys 2215 Phys S&E 1 Lab 1 cr. F,S	Phys 2225 Phys S&E 2 Lab 1 cr. F,S				

- Honors versions are available. Sequence starts in the fall. Must apply to add the class.
- Talk with advisors to see how other calculus sequences fulfill this requirement.
- CHEM 3060 is highly recommended as prerequisite for CHEM 3100.
- Two upper division labs required
 - Fall options: Chem 5710, Chem 5730
 - Spring options: Chem 5710, Chem 5700, Chem 5750, Chem 5720
- Math 2270 & 2280 are more rigorous and will take 2 semesters to complete.
- Must take 3 credits of Math 3XXX. Check degree audit or advisor to see accepted math classes for elective.
- Must take 6 credits of Math 5XXX. Check degree audit or advisor to see accepted math classes for elective. Chem 4800, 4965, or 4999 can fulfill 2 credits.
- CHEM 2000 has been replaced with SCI 1500 for students starting Fall 26. CHEM 4000 will remain for students on older catalogues.