

Biochemistry BS/BA Course Requirements (2024)

An undergraduate degree in Biochemistry provides students with significant flexibility to fashion a degree to meet their educational goals. A student who receives a Biochem degree will be prepared to enter the workforce in a wide variety of areas that include pharmaceutical sciences & biotechnology, or to pursue advanced degrees in the biochemical sciences. Students will explore biophysical and biochemical aspects of life processes at the molecular level & select electives that provide depth and breadth.

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	Chem 1220 ¹ Gen Chem 2 4 cr. F,S,U	Chem 2310 ¹ Org Chem 1 4 cr. F,S,U	Chem 2320 ¹ Org Chem 2 4 cr. F,S,U	Chem 3510 Biochem 1 3 cr. F,S,U	Chem 3520 Biochem 2 3 cr. S	Chem 3070 Thermodynamics 4 cr. F,S	Chem 3060 or 3090 Quant or Biophys F,S or S 4 cr.
Chem 1215 Gen Chem 1 Lab 1 cr. F,S,U	Chem 1225 Gen Chem 2 Lab 1 cr. F,S,U	Chem 2310 Organic I Lab 2 cr. F,S,U	Chem 2325 Organic 2 Lab 2 cr. F,S,U	Adv Lab ³ 2 cr. F,S	Biochem Lab ³ 2-3 cr. F,S	Chem 3000 or 3100 QA or Inorg F,S,U or F 4 cr.	Biochem Elective ⁴ 3 cr. F,S
Math 1210 ² Calculus 1 4 cr. F,S,U	Math 1220 ² Calculus 2 4 cr. F,S,U	Math 2210 ² Calculus 3 3 cr. F,S,U	Wrtg 3014 Sci Writing 3 cr. F,S,U CW	Phys 2210 Phys S&E 1 4 cr. F,S,U	Phys 2220 Phys S&E 2 4 cr. F,S,U	Adv Lab ³ 2 cr. F,S	Biochem Elective ⁴ 2-3 cr. F,S
Chem 2000/4000 UG Seminar 1 cr. F,S	Biol 1610 Fund Biology 1 4 cr. F,S,U			Phys 2215 Phys S&E 1 Lab 1 cr. F,S	Biochem Elective ⁴ 3 cr. F,S		

Complete Sr Exit⁵

- 1) Honors versions are available. Sequence starts in the fall. Must apply to add the class.
- 2) Talk with advisors to see how other calculus sequences fulfill this requirement.
- 3) 3 upper division labs required:
 - Fall options: Chem 5710 (org, 1st half), Chem 5730 (inorg, 2nd half), Chem 3525 (molecular DNA lab, full)
 - Spring options: Chem 5700 (analytical, 1st half), Chem 5750 (chembio, 1st half), Chem 5720 (pchem, 2nd half), Chem 3515 (biochem, full)
 - 2 Credits of one of the following fulfill one Advanced Lab: Chem 4800, Chem 4965, or CHEM 4999
- 4) Total of 8 Hours of biochemistry electives needed. Check Degree Audit for options. Meet with advisor to have questions answered.
- 5) Your Senior Exit Reflections will be completed your final semester. You will be added to a Canvas page once the deadline to apply for graduation has passed.