



Chemistry Sequence for Biology Majors
Questions? Email bioadvising@utah.edu | 801-581-6244

All Biology majors must complete two semesters of General Chemistry with labs (CHEM 1210 + 1215 and CHEM 1220 + 1225), one semester of Organic chemistry (CHEM 2310), and one semester of Biochemistry (BIOL/CHEM 3510). Note: most medical, dental, pharmacy schools, and some vet schools, require 2 semesters Organic chemistry with labs (Chem 2310 + 2315 and 2320 + 2325).

The Chemistry Department enforces MATH pre-requisites for CHEM 1210 (and pre-requisites for other sequenced chem classes). To enroll in CHEM 1210, you must have: completed MATH 1050 or 1080 or calculus I with a C- or better -or- ACT MATH ≥ 25 -or- SAT MATH ≥ 600 -or- AP CALC AB or CALC BC ≥ 3 , -or- complete CHEM 1200 with a C- or better.

Permission Code Requests: Chemistry Advisor | advisor@chem.utah.edu in the Chemistry Department.

No high school background in Chemistry	CHEM 1110 (4) or CHEM 1200 (4; online), then continue to CHEM 1210.
AP Chemistry in high school with an AP exam score of ≥ 4 and MATH pre-requisites, see above) Important: <ul style="list-style-type: none">• Chemistry AP scores DO NOT waive the requirement for gen chem labs (CHEM 1215 & 1225)• The requirement for general chemistry labs is fulfilled with AP chem labs at the U (CHEM 1070 + 1080, or equiv).• Medical/dental/pharm schools may not accept AP scores <4.	Start with CHEM 1220 Gen Chem II+ CHEM 1215 Gen CHEM Lab.
AP Chemistry in high school with an AP exam score ≥ 5 Important: <ul style="list-style-type: none">• AP test scores DO NOT waive the reqmt for gen chem labs (CHEM 1215 & 1225). See the CHEM advisor if you completed AP chem labs in high school.• We suggest completing at least one general chem lab (CHEM 1215 or CHEM 1225) before taking organic lab.• The requirement for general chemistry labs is fulfilled with AP chem labs (CHEM 1070 + 1080, or equiv).• Medical/dental/pharm schools may not accept AP in lieu of Gen Chem II.	Start with CHEM 2308 (1 CR O/L review) + CHEM 2310 O Chem 1 + CHEM 1215 Gen Chem 1 lab
Completion of General Chemistry I Lecture and Lab (CHEM 1210 + 1215 or equivalent)	Start with CHEM 1220(4) + 1225 (1)
Completion of General Chemistry II Lecture and Lab (CHEM 1220 + 1225 or equivalent)	Start with CHEM 2308 (1 cr; optional on-line review) + CHEM 2310 (4) Pre-med, pre-DDS, pre-vet, pre-pharm students should also take CHEM 2315 (O chem I lab)
Completion of Organic Chemistry I Lecture and Lab (CHEM 2310 + 2315 or equivalent).	Depends on career path, contact Biology advisor.
Completion of Organic Chemistry II Lecture and Lab (CHEM 2320 + 2325 or equivalent).	Depends on career path, contact Biology advisor.



ACT/SAT Math Placement Guide

Math Advisor: Angie Gardiner | advisor@math.utah.edu | math.utah.edu

The Math Department enforces all prerequisites. Placement in math classes is by courses completed (grade \geq C), ACT/SAT/Accuplacer scores that are less than two years old, or AP Calculus scores of 3 or better. After two years placement by AP score changes, please see your advisor for more information. Expired ACT/SAT cannot be used for placement (students with expired ACT/SAT scores must take the Accuplacer to determine placement).

Math Sequence for Biology Majors: **MATH 980**>>**MATH 1010**>>[**MATH 1050 and 1060 -or- MATH 1080**]>>**MATH 1170 or 1210**>> **MATH 1180 or 1220**. ***MATH 1250 and 1260 can also fulfill the math requirement for Biology Majors.**
-**Completion of MATH 1170 and 1180 -or- MATH 1210 and 1220 fulfills the math requirement for Biology BA/BS.**

ACT 17 or Lower SAT 460 or lower Accuplacer: QAS \leq 244	MATH 980
ACT 18-22 SAT 470-560 -Or- C in MATH 980 Accuplacer: QAS \geq 245	MATH 1010
ACT 23-27 SAT 570-640 -Or- C in MATH 1010 Accuplacer: AAF \geq 246	MATH 1050 (need "C" or better in both MATH 1050 and 1060 to advance to Calculus I)
Accuplacer: AAF \geq 263 Can only place into MATH 1060 by taking the Accuplacer	MATH 1060 (Need or better to advance to Calculus I)
ACT 25-27 SAT 580-640 -Or- B in MATH 1010 AAF \geq 250 For students that scored a 24 or 25: If you take this course please make sure that you can dedicate enough time to the class and that it is a course you are willing to repeat if needed particularly those interested in pre-professional schools.	MATH 1080 (5) Precalculus This course is the equivalent to taking 1050/1060 in one semester. It is 5 credits and is intensive and moves quickly.
ACT 28 or higher SAT 650 or higher -Or- C in MATH 1050 and 1060 or 1080 Accuplacer: AAF \geq 276 95\leqCLM\leq120 *Do not need permission code to enroll.	MATH 1170 Calculus for Biologists or MATH 1210 Calculus I

If you would like to test into a higher-level math course, you may take the **Accuplacer** exam to place into it.

AP Math Placement Guide

Completion of MATH 1170 and 1180 -or- 1210 and 1220 fulfills the math requirement for Biology BA/BS.

AB 3	Places into MATH 1170 Calculus for Biologists or MATH 1210 Calculus I - If you took the AP Calculus BC test your junior year in high school, it is recommended but not required that you take a Math Bootcamp refresher.
AB 4/5	Fulfills Math 1170/1210. Places into MATH 1220
BC 3	Places into MATH 1220 - If you took the AP Calculus BC test your junior year in high school, it is recommended but not required that you take a Math Bootcamp refresher.
BC 4 or 5	MATH 1260 Waives 1210 and 1220 for the Biology Major. Please note: Many medical schools will NOT accept AP credits towards their entrance requirements in math (most med schools require at least one semester of math at college/university).