

B.A. CHEMISTRY DEGREE PROGRAM

Suggested Course Sequence

- The BA Chemistry degree program requires the fewest units of our Department's undergraduate degree programs. Many students take advantage of this to customize their education to prepare for careers in teaching, criminology, forensics, biotech, clinical, and environmental sciences, etc. Students are urged to consult with an advisor regarding their educational and career plans.
- Courses used in the major program must be completed with a minimum grade point average of 2.0. All courses used in the major program must be completed with letter grades (CR/NC not allowed) and courses used for CHEM prerequisites must be completed with a C or better.
- Chemistry/biochemistry advisors, contact info, and other important advising information are available on the Dept website (http://www.chemistry.sfsu.edu/advising_undergrad/0layout.php).
- General Education (GE) advising is available through the SFSU Advising Center (ADM 211, 415-338-2103; advising@sfsu.edu) or the COSE Student Success Center (SCI 381, 415-338-2816, cssc@sfsu.edu)
- Refer to the SFSU Bulletin for detailed information on University policies and procedures, GE requirements, requirements for the major, and course descriptions and prerequisites (<http://bulletin.sfsu.edu>).

Freshman Year - Fall Semester

	Units
CHEM 115 General Chemistry I & Lab	5
MATH 226 Calculus I	4

Freshman Year - Spring Semester

	Units
CHEM 215 General Chemistry II	3
CHEM 216 General Chemistry II Lab	2
MATH 227 Calculus II	4

Sophomore Year - Fall Semester

	Units
CHEM 233 Organic Chemistry I	3
CHEM 234 Organic Chemistry I Lab	2
PHYS 111 ¹ General Physics I	3
PHYS 112 ¹ General Physics I Lab	1

Sophomore Year - Spring Semester

	Units
CHEM 335 Organic Chemistry II	3
CHEM 336 Organic Chemistry II Lab	2
PHYS 121 ¹ General Physics II	3
PHYS 122 ¹ General Physics II Lab	1

Junior Year - Fall Semester

	Units
CHEM 321 Quantitative Analysis	3
CHEM 322 Quantitative Analysis Lab	2

Junior Year - Spring Semester

	Units
CHEM 349 ² General Biochemistry	3
CHEM 390GW ³ Contemporary Chem/Biochem Research	3

Senior Year - Fall Semester

	Units
CHEM 300 General Physical Chemistry I	3
CHEM 325 Inorganic Chemistry	3

Senior Year - Spring Semester

	Units
Upper Division Chemistry Elective	3

Upper Division Chemistry Electives

- Students must complete at least 3 units of upper division chemistry electives selected from the list below. Courses taken at community colleges cannot be used to meet electives in the major. Students may substitute graduate courses in chemistry or appropriate courses in biology, physics, geosciences, and computer science with prior approval of a major advisor.
- Check course co- and pre-requisites *before* choosing/enrolling in these elective classes.
- Note some elective courses are offered only once per year.

Chemistry Electives

	Units
CHEM 327 Practical GC and HPLC	4
CHEM 343 Biochemistry I Lab	3
CHEM 370 Computer Applications in Chemistry & Biochemistry	3
CHEM 420 Environmental Analysis	3
CHEM 422 Instrumental Analysis	4
CHEM 426 Inorganic Chemistry Lab	2
CHEM 451 Experimental Physical Chemistry	2
CHEM 640 Special Topics in Biochemistry	2-3
CHEM 699 ⁴ Independent Study	1-3

¹ PHYS 220/222 and either 230/232 or 240/242 may be substituted for PHYS 111/112 and 121/122.

² CHEM 340 may be substituted for CHEM 349.

³ SCI 560 may be substituted for CHEM 390.

⁴ CHEM 699 requires an add permit from research advisor.

Suggestions for elective courses for specific career tracks

K-12 teaching	ASTR 115/116, GEOL 110, GEOL 405 BIO 230/240
Pre-pharmacy:	BIOL 230/240, BIOL 401/402, BIOL 350 or 355, BIOL 612/613, MATH 124
Pre-medicine:	BIOL 230/240, BIOL 350, BIOL 355, BIOL 401, BIOL 612/613
Forensics:	BIOL 230/240, BIOL 355, BIOL 357, BIOL 358, CHEM 327 or CHEM 420, CHEM 422, MATH 124

