

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
PHYS 111 ¹	General Physics I	3
PHYS 112 ¹	General Physics I Lab	1

Freshman Year - Spring Semester		Units
CHEM 215	General Chemistry II	3
CHEM 216	General Chemistry II Lab	2
PHYS 121 ¹	General Physics II	3
PHYS 122 ¹	General Physics II Lab	1

Sophomore Year - Fall Semester		Units
CHEM 233	Organic Chemistry I	3
CHEM 234	Organic Chemistry I Lab	2
MATH 226	Calculus I	4

Sophomore Year - Spring Semester		Units
CHEM 335	Organic Chemistry II	3
CHEM 336	Organic Chemistry II Lab	2
MATH 227	Calculus II	4

Junior Year - Fall Semester		Units
CHEM 321	Quantitative Analysis	3
CHEM 322	Quantitative Analysis Lab	2
CHEM 390GW ²	Contemporary Chem/Biochem Research	3

Junior Year - Spring Semester		Units
CHEM 349 ³	General Biochemistry	3
CHEM 325	Inorganic Chemistry	3

Senior Year - Fall Semester		Units
CHEM 300	General Physical Chemistry I	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 ⁴	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 SCI 560 may be substituted for CHEM 390.

³ CHEM 340 may be substituted for CHEM 349.

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

