BACHELOR OF ARTS IN CHEMISTRY – CHEM ASSOCIATE DEGREE FOR TRANSFER (ADT) ROADMAP

This is a sample pathway for students who transfer to San Francisco State University in the current Bulletin year with an AS-T in Chemistry. Thirty-four units in the major (CHEM 115, CHEM 215, CHEM 233, CHEM 234, CHEM 235, CHEM 236, MATH 226, MATH 227, and the required PHYS sequence) and 33 units of lower-division GE have been satisfied. Check with a major advisor about the most appropriate course sequence for you. **Degree completion guaranteed in 60 units; see the Associate Degree for Transfer (ADT) section for more information (https://bulletin.sfsu.edu/undergraduate-admissions/transfer-students/).**

To Do at SF State:

Enough total units to reach 120 minimum for graduation; 30 units minimum at the upper-division level; to include the following:

University-Wide Requirements: 15-21 Units

- American Institutions (0-6 units): US History, US Government, California State and Local Government requirements if not taken before transfer.
- Lower-division GE (6 units) – Area 3 (3 units in any subarea) and Area 4 (3 units).
- Upper-division GE Areas 2UD/5UD, 3UD, and 4UD (9 units) - Courses required for the major may double-count if approved for UD GE.
- Students entering this major with the AS-T in Chemistry are not required to fulfill SF State Studies requirements.
- Complementary Studies is met in major with required PHYS and MATH courses.

Chemistry BA: 20 Units

Completed: CHEM 115, CHEM 215, CHEM 233, CHEM 234, CHEM 235, CHEM 236, MATH 226, MATH 227, and the required PHYS sequence.

- Major Upper-Division Requirements/GWAR (17 units)
- Major Upper-Division Electives (3 units) - Consult with an advisor regarding the selection of elective courses and check course co- and prerequisites before enrolling.

University Electives: 19 or More Units

Depending on course choices made at the community college, how transferred units are applied to the requirements above, and course choices at SF State. Some courses may meet more than one requirement, e.g., UD GE and the major. Upper-division electives are recommended to meet the minimum 30-unit upper-division requirement.

Course	Title	Units
First Semester		
CHEM 321 & CHEM 322	Quantitative Chemical Analysis and Quantitative Chemical Analysis Laboratory (Major Upper-Division)	5
CHEM 390GW	Contemporary Chemistry and Biochemistry Research - GWAR (Major Upper-Division)	3
US History (https://bulletin.sfsu.edu/undergraduate-education/american-institutions/#USHaGR)		3
or University Elective if US History complete		
University Elective		4
	Units	**15**
Second Semester		
Select One (Major Upper-Division):		3
CHEM 300	Physical Chemistry for Life Sciences I	
CHEM 351	Physical Chemistry I: Thermodynamics and Kinetics	
Select One (Major Upper-Division):		3
CHEM 340	Biochemistry I	
CHEM 349	General Biochemistry	

GE Area 3: Arts and Humanities		3
GE Area 4: Social and Behavioral Sciences		3
GE Area 5UD or 2UD: Upper-Division Sciences or Upper-Division Mathematical Concepts		3
	Units	**15**
Third Semester		
CHEM 325	Inorganic Chemistry (Major Upper-Division)	3
GE Area 3UD: Upper-Division Arts or Humanities		3
University Elective - Take Three		9
	Units	**15**
Fourth Semester		
Upper Division Elective [1]		3
GE Area 4UD: Upper-Division Social and Behavioral Sciences		3
U.S. and California Government (https://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg)		3
or University Elective if US/CA Government met before transfer		
University Elective – Take Two		6
	Units	**15**
	Total Units	**60**

[1] **Upper-Division Electives (3 units minimum)**
A full list of courses that can fulfill this requirement can be found in the Degree Requirements (https://bulletin.sfsu.edu/colleges/science-engineering/chemistry-biochemistry/ba-chemistry/#degreerequirementstext).