

CHEMISTRY (CH25)

Major Requirements for the **CHEMISTRY B.S. Degree-Transfer** Starting Fall 2024 and After – Transfer Students

The Chemistry major provides a broad introduction for biochemistry, organic, physical, or inorganic students and those who prefer not to specialize. This major will enable a student to pursue further studies in chemistry or in related fields of science, medicine, or engineering

The following courses must be taken for a letter grade:

Lower Division Requirements:

- ☐ **General Chemistry** (CHEM 6A, 6B & 6C or 6AH, 6BH & 6CH)
- ☐ **General Chemistry Lab** (CHEM 7L or 7LM)
- ☐ **Physics** (PHYS 2A, 2B & 2C)
- ☐ **Physics Lab** (PHYS 2BL or 2CL or 2DL)
- ☐ **Calculus** (MATH 20A, 20B, 20C & 20D)
- ☐ **Linear Algebra** (MATH 18)
- ☐ **Organic Chemistry** (CHEM 41A, 41B & 41C)
- ☐ **Organic Chemistry Lab** (CHEM 43A)

Upper Division Requirements:

- ☐ **1. Physical Chemistry** (CHEM 130, 131 & 132)
- ☐ **2. Inorganic Chemistry** (CHEM 120A & B)
- ☐ **3. Biochemical Structure and Function** (CHEM 114A)
- ☐ **4. Required Laboratory Courses (must take all 3):**
 - a. Analytical Chemistry Laboratory (CHEM 100A)
 - b. Organic Chemistry Laboratory II (CHEM 143B)
 - c. Physical Chemistry Laboratory (CHEM 105A)
- ☐ **5. 2 Laboratory Elective** (select 2 of the following courses):
 - a. Instrumental Chemistry Laboratory (CHEM 100B)
 - b. Advanced Physical Chemistry Laboratory (CHEM 105B)
 - c. Protein Biochemistry Laboratory (CHEM 108)
 - d. Recombinant DNA Laboratory (CHEM 109)
 - e. Advanced Inorganic Chemistry Laboratory (CHEM 123)
 - f. Organic Chemistry Laboratory III (CHEM 143C)
 - g. Molecular Design and Synthesis (CHEM 143D)
 - h. Reading and Research (CHEM 199): 8 units worth of research with the same instructor may be petitioned to fulfill one elective lab.
- ☐ **6. 3 Additional Electives** (select 3 electives that match the following description):
 - a. Four-unit (minimum) upper division course offered by the Dept. of Chemistry and Biochemistry.
 - b. Four units of CHEM 199 may be petitioned.

Sample 2-year Academic Plan for Chemistry B.S.

This plan assumes completion of Preparatory course requirements prior to transferring to UCSD.	FALL	WINTER	SPRING
	THIRD YEAR – 1 ST YEAR TRANSFER		
	MATH 20C	MATH 18	CHEM 143B
	CHEM Elective	PHYS 2C or 2D	CHEM Elective
	CHEM 120A	PHYS 2BL OR 2CL*	CHEM 120B
		CHEM 100A	MATH 20D
	FOURTH YEAR – 2 ND YEAR TRANSFER		
	CHEM 130	CHEM 131	CHEM 132
	CHEM Elective Lab	CHEM Elective	CHEM Elective Lab
	CHEM 114A	CHEM 105A	

This plan assumes completion of ALL lower division requirements prior to transferring to UCSD.	FALL	WINTER	SPRING
	THIRD YEAR – 1 ST YEAR TRANSFER		
	CHEM 130	CHEM 131	CHEM 132
	CHEM 120A	CHEM Elective	CHEM 143B
		CHEM 100A	CHEM 120B
	FOURTH YEAR – 2 ND YEAR TRANSFER		
	CHEM 105A	CHEM Elective	CHEM Elective
	CHEM 114A	CHEM Elective Lab	CHEM Elective Lab

IMPORTANT NOTES:

- We do not recommend taking a chemistry lab your first quarter at UCSD or taking more than one lab a quarter.
 - *We only recommend taking PHYS labs with other labs because PHYS labs are less than 4 units.
- The plans above do not include GE/University requirements or courses required for ACS Certification.
- A minimum 2.0 major GPA is required for graduation.
- No more than one "D" grade** is allowed in **upper-division** coursework.
- Many courses have enforced prerequisites or are only offered once per year. It is your responsibility to know which prerequisites are needed for each (course catalog).
- The quarter in which a course is offered is subject to change. Please check the department website (course offerings) each Spring quarter to see a projection of classes offered next AY.