

CHEMISTRY, ASSOCIATE IN SCIENCE FOR UC TRANSFER

The Associate in Science in Chemistry for UC Transfer degree prepares students to pursue a Bachelor's degree in Chemistry at a University of California institution. This major provides students with a full two years of chemistry education as well as a strong foundation in math and physics. In addition, completion of the AS in Chemistry for UC Transfer degree allows students to defer for completion after transfer two courses in IGETC Area 3 (Arts and Humanities) and two courses in IGETC Area 4 (Social and Behavioral Sciences). Admission to the University of California is competitive; successful completion of this program does not guarantee acceptance to a UC campus.

Learning Outcomes

Upon successful completion of the program, students will be able to:

- Describe the particle nature of matter, explain the attractions and/or bonds between chemical units, and predict the physical and chemical properties they possess.
- Describe chemical compounds and their reactions using the fundamental language of chemistry, including the use of proper chemical names, molecular formulas, chemical equations, structural drawings, and reaction mechanisms.
- Predict the likelihood and extent of a chemical reaction by analyzing the kinetic and thermodynamic properties of the system.
- Solve chemistry-specific problems by identifying the essential parts of the problem, formulating a strategy for solving the problem, applying appropriate techniques to arrive at a solution, testing the correctness of the solution, and interpreting the results.
- Successfully execute chemistry experiments using standard laboratory equipment, modern instrumentation, and classical purification techniques.
- Communicate the concepts and results of chemistry experiments through effective writing and/or oral communication using the discipline standards for reporting and citation.
- Follow the proper procedures and regulations for safe handling and use of chemicals.

Associate in Science for UC Transfer Degree Major Requirements

Code	Title	Units
Required Core		
CHEM 1A	General Chemistry I	5
CHEM 1B	General Chemistry II	5
CHEM 12A	Organic Chemistry I	5
CHEM 12B	Organic Chemistry II	5
MATH 20A	Calculus with Analytic Geometry I	4
MATH 20B	Calculus with Analytic Geometry II	4
MATH 20C	Calculus of Several Variables	4
MATH 32	Differential Equations	4
PHYS 3A	Science and Engineering Physics I	4
PHYS 3B	Science and Engineering Physics II	4
PHYS 3C	Science and Engineering Physics III	4
TOTAL MAJOR UNITS		48

Additional Requirements ¹ 20

Complete Competency Requirements and IGETC pattern, deferring for completion after transfer to UC two courses each in Area 3 (Arts and Humanities) and Area 4 (Social and Behavioral Sciences). All courses taken must be UC-transferable.

Total Units 68

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Consult with a counselor for campus-specific admission requirements.

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.