

# ASSOCIATE IN SCIENCE IN CHEMISTRY FOR TRANSFER (AS-T)

Students completing the Associate in Science in Chemistry for Transfer will be able to seamlessly transfer into the CSU system to pursue a baccalaureate degree in Chemistry. Students completing this degree will have an introductory foundation for the field of Chemistry through the study of atomic structure, thermodynamics, orbital theory, inorganic and organic chemistry, reaction mechanisms, stoichiometry, instrumentation and laboratory protocol. Students will acquire skills and abilities in using standard laboratory equipment, evaluating data and critically assessing conclusions, learning and applying scientific concepts and developing critical thinking skills.

## Program Outcomes

- Demonstrate critical thinking and logical reasoning skills by applying appropriate theories and techniques to solve quantitative problems.
- Demonstrate critical thinking and logical reasoning skills by applying appropriate theories and techniques to solve qualitative problems.
- Collect, record, organize, and analyze experimental data and recognize the limitations of measurements.

## Transfer & Career Opportunities

This Associate in Science in Chemistry for Transfer (AS-T) Degree is intended to meet the lower division requirements for chemistry for all CSU campuses. Students planning to transfer to institutions other than the CSU are encouraged to consult ASSIST.org (<http://www.assist.org>) and a COS counselor for program planning and course selection. Most common career opportunities with a baccalaureate degree include: chemical lab technician, water purification technician, quality control coordinator, and general laboratory work.

## Program Requirements

Code	Title	Units
GENERAL EDUCATION		31
Intersegmental General Education Transfer Curriculum (IGETC-CSU) *		
Note: This 31 unit IGETC for STEM Majors GE pattern is the only GE option available that allows compliance with the 60 unit AS-T program maximum. One less course (3 units) is required in AREA 3 (Arts and Humanities) and one less course (3 units) is required in AREA 4 (Social and Behavioral Sciences).		
+ REQUIRED MAJOR COURSES		36
CHEM 001	General Chemistry 1 *	5
CHEM 002	General Chemistry 2	5
CHEM 012	Organic Chemistry 1	5
CHEM 013	Organic Chemistry 2	5
MATH 065	Calculus 1 *	4
MATH 066	Calculus 2	4
PHYS 055	Physics 1: Mechanics & Waves	4
PHYS 056	Physics 2: E&M and Heat	4

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TOTAL	60

\* Course(s) meets General Education requirement and 7 units may be double counted above in 1A (IGETC). IGETC-CSU requires completion of IGETC AREA 1C.

The Associate of Science Degree for Transfer requirements include completion of the 60 unit program defined above with at least 12 units taken in residence at College of the Sequoias with a "C" (2.0) average (see Transfer Information and Requirements (<https://catalog.cos.edu/transfer-information-requirements/>) for additional details).