

Chemistry

A.S.-T DEGREE: 60 units



Associate Degree
for TransferSM

DESCRIPTION

Chemistry is the study of the properties, composition and chemical transformations of all material substances. It is often referred to as the "central science" since it draws from mathematics and physics and forms a necessary background to the understanding of earth sciences and all the biological disciplines, including the various medical professions.

The Associate of Science Transfer Degree in Chemistry offered at Gavilan College is designed to meet the diverse needs of our students. This program will enable the students to develop a strong foundation in chemistry, as well as an understanding of physics and mathematics. The chemistry courses offered satisfy general education requirements, allied-health sciences, as well as chemistry, biology, physics and engineering majors.

The Chemistry Program provides students the opportunity to obtain a degree upon successful completion of the requirements of the chemistry transfer major. The theoretical knowledge and laboratory skills acquired will prepare the students interested in a seamless transfer into the CSU system, as well as other programs and enhance their success with entry-level employment that require chemistry courses as prerequisites.

STATEMENT OF PROGRAM GOALS AND OBJECTIVES:

The goal of the program is to help students better understand the chemical world and the analysis of it through chemistry techniques using qualitative and quantitative reasoning. The coursework prepares students to think critically and apply reasoning skills to analyze real world situations. Students will be able to successfully transfer to any institution of higher learning armed with the foundation needed to pursue a Baccalaureate degree in Chemistry and will be prepared for careers in fields such as industry, education, and research. Students will complete a comprehensive curriculum to meet degree, transfer, and personal growth needs. This AS-T degree in chemistry will fulfill the transfer requirements for the campuses of the CSU systems in the Chemistry major (or a similar or equivalent program).

PROGRAM REQUIREMENTS:

CORE COURSES: (36 UNITS)

CHEM1A	General Chemistry	5
CHEM1B	General Chemistry	5
CHEM12A	Organic Chemistry	5
CHEM12B	Organic Chemistry	5
PHYS4A	Physics for Scientists and Engineers - Mechanics.	4
PHYS4B	Physics for Scientists and Engineers - Electricity and Magnetism	4

MATH1A	Single-Variable Calculus and Analytic Geometry.	4
MATH1B	Single-Variable Calculus and Analytic Geometry.	4

ASSOCIATE DEGREE FOR TRANSFER REQUIREMENTS:

- ▶ Completion of 60 semester units that are eligible for transfer to the California State University, including both of the following:
 1. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
 2. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
- ▶ Obtainment of a minimum grade point average of 2.0.

Title 5 section 55063(a) also require that students must earn a "C" or better in all courses required for the major or area of emphasis, or a "P" if the course was taken on a 'pass-no-pass' basis.

TOTAL UNITS FOR THE MAJOR: 36

DOUBLE COUNTED UNITS: CSU: 9; IGETC: 9

GENERAL EDUCATION REQUIREMENTS: CSU: 33; IGETC 31

A student may complete the Gavilan College A.A./A.S. general education, the CSU-GE Breadth or the IGETC pattern, plus sufficient electives to meet a 60 unit total. See a counselor for details.

NOTE: A course may be used to satisfy both general education and major courses. See "Double Counting Rule".

ELECTIVES NEEDED TO GET TO 60 UNITS: CSU: 0; IGETC: 2