

CHEMISTRY

Associate in Science

Transfer Preparation * (Major Code: 01530)

Chemistry is the study of the composition of matter, its structure, and the means by which it is converted from one form to another. Related to chemistry is molecular biology. Students interested in matter as it applies to life should also take courses in the life sciences. Most courses require mathematics prerequisites. Placement is determined by the Mathematics Assessment Process, which should be taken before registration. It is essential that students start with mathematics during the first semester.

Chemistry majors are advised to give priority to lower-division requirements for the major as they are prerequisites for most upper division courses. Only as many general education courses should be taken as can be included in the 70-unit transfer limitation, and these must be chosen with care to insure that they fit into the general education pattern at the transfer institution.

Program Student Learning Outcome

- Solve quantitative chemistry problems and demonstrate reasoning clearly and completely.

First Semester		Units
CHEM 200	GENERAL CHEMISTRY I **	5
MATH 250	ANALYTIC GEOMETRY AND CALCULUS I **	5
Units		10
Second Semester		Units
CHEM 210	GENERAL CHEMISTRY II	5
MATH 251	ANALYTIC GEOMETRY AND CALCULUS II	4
PHYS 270	PRINCIPLES OF PHYSICS I	3
PHYS 271	PRINCIPLES OF PHYSICS LABORATORY I	1
Units		13
Third Semester		Units
CHEM 240	ORGANIC CHEMISTRY I	5
MATH 252	ANALYTIC GEOMETRY AND CALCULUS III	4
PHYS 272	PRINCIPLES OF PHYSICS II	3
PHYS 273	PRINCIPLES OF PHYSICS LABORATORY II	1
Units		13
Fourth Semester		Units
CHEM 250 or CHEM 242	ANALYTICAL CHEMISTRY or ORGANIC CHEMISTRY II	5
Units		5
Total Units		41

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Career and Transfer Connections. See catalog Transfer Courses Information (<http://catalog.swccd.edu/student-success-support-program/student-services-and-college-services/other-services/transfer-courses/>) section for further information.

** If you do not have the prerequisites for CHEM 200 and MATH 250, take CHEM 170 and MATH 101 in your first semester. This will add one semester to your program of studies.

Students who plan to major in Biochemistry at a four-year college or university should also enroll in BIOL 210 and BIOL 212.

To earn an associate degree, additional general education and graduation requirements (<http://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/>) must be completed.