

CHEMISTRY

Course Prerequisites

NOTE FOR VISITING STUDENTS: *Make sure you are familiar with the topics covered in the prerequisite(s) listed for a course, either from having taken a similar course at another college or university or from having previous background knowledge. The department trusts that students will place themselves accurately when enrolling in courses—no documentation of having met the listed prerequisite(s) is needed in order to enroll in Axess.*

Course	Prerequisite(s)	Prerequisite Course Description
CHEM 1: Structure and Reactivity	CHEM 31X (equivalent to Chem 31A and 31B combined): Chemical Principles	Chemical equilibria concepts, equilibrium constants, acids and bases, chemical thermodynamics, quantum concepts, models of ionic and covalent bonding, atomic and molecular orbital theory, periodicity, and bonding properties of matter. Recitation.
CHEM 2: Organic Monofunctional Compounds	CHEM 1/CHEM 33: Structure and Reactivity	Organic chemistry, functional groups, hydrocarbons, stereochemistry, thermochemistry, kinetics and chemical equilibria. Recitation.
CHEM 2L: Organic Chemistry Lab I	CHEM 1L: Introduction to Organic Chemistry Lab	Techniques for separation of compounds: distillation, crystallization, extraction and chromatographic procedures in the context of reactions learned in CHEM 1. Use of GC instrumentation for the analysis of reactions.
CHEM 3: Organic Polyfunctional Compounds	CHEM 2/CHEM 35: Organic Monofunctional Compounds	Organic chemistry of oxygen and nitrogen aliphatic compounds. Recitation.
CHEM 3L: Organic Chemistry Lab II	CHEM 2L: Organic Chemistry Lab I	Application of separation techniques in the context of reactions learned in CHEM 2. Use of IR instrumentation for the analysis of reactions.
CHEM 31B: Chemical Principles II	CHEM 31A: Chemical Principles I	For students with moderate or no background in chemistry. Stoichiometry; periodicity; electronic structure and bonding; gases; enthalpy; phase behavior. Emphasis is on skills to address structural and quantitative chemical questions. Recitation.