Catalan

CTLN 102. Intensive Elementary Catalan. Romance tongue of northeastern Spain, Andorra, and southwestern France. Emphasis on oral communication, grammar, reading, and culture. Prior study of another Romance language through the intermediate level is expected. No credit for students who have earned credit for a higher level Catalan language course. [3] (INT)


Chemistry

CHEM 099. Commons Seminar. Topics vary. [1] (No AXLE credit)

CHEM 100a. Introductory Chemistry Laboratory. Laboratory to accompany 101a. Corequisite: 101a. One three-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 101a. [1] (No AXLE credit)

CHEM 100b. Introductory Chemistry Laboratory. Laboratory to accompany 101b. Corequisite: 101b. One three-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 100b. [1] (No AXLE credit)

CHEM 101a. Introductory Chemistry. General principles for non-science majors or those not planning on taking additional chemistry courses. The periodic table, chemical reactions, properties of solutions, and atmospheric chemistry with connections to global environmental issues. No prior chemistry experience required. Not a prerequisite for advanced courses in chemistry. [3] (MNS)

CHEM 101b. Introductory Chemistry. General principles for non-science majors or those not planning on taking additional chemistry courses. Chemistry of water, basic nuclear chemistry, organic and biochemical chemistry, with discussion of the chemistry of common medicines and nutritional chemistry. No prior chemistry experience required. Not a prerequisite for advanced courses in chemistry. [3] (MNS)

CHEM 102a. General Chemistry. General principles of chemistry for science and engineering students. Composition and structure of matter, chemical reactions, bonding, solution chemistry, and kinetics. Thermodynamics, equilibrium, acids and bases, electrochemistry, and coordination compounds. Three lectures per week and a recitation period. Prerequisite or corequisite: 104a. [3] (MNS)

CHEM 102b. General Chemistry. Continuation of 102a. General principles of chemistry for science and engineering students. Composition and structure of matter, chemical reactions, bonding, solution chemistry, and kinetics. Thermodynamics, equilibrium, acids and bases, electrochemistry, and coordination compounds. Three lectures per week and a recitation period. Prerequisite: 102a. Prerequisite or corequisite: 104b. [3] (MNS)

CHEM 104a. General Chemistry Laboratory. Laboratory to accompany 102a. One three-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 104a. Prerequisite or corequisite: 102a. [1] (No AXLE credit)

CHEM 104b. General Chemistry Laboratory. Laboratory to accompany 102b. One three-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 102b. Prerequisite or corequisite: 102b. [1] (No AXLE credit)

CHEM 115F. First-Year Writing Seminar. Topics Vary. [3]

CHEM 202. Introduction to Bioinorganic Chemistry. Functions of inorganic elements in living cells. The manner in which coordination can modify the properties of metallic ions in living systems. Prerequisite: 218b or 220b. [3] (MNS)

CHEM 203. Inorganic Chemistry. A survey of modern inorganic chemistry including coordination compounds and the compounds of the main-group elements. Representative reactions and current theories are treated. Prerequisite or corequisite: 230 or 231. [3] (MNS)

CHEM 207. Introduction to Organometallic Chemistry. A general description of the preparation, reaction chemistry, molecular structure, bonding, and spectroscopic identification of organometallic compounds of the transition metals. Prerequisite: 203. [3] (MNS)

CHEM 210. Introduction to Analytical Chemistry. Fundamental quantitative analytical chemistry with emphasis on principles of analysis, separations, equilibria, stoichiometry and spectrophotometry. No credit for graduate students in chemistry. Corequisite: 212a. [3] (MNS)

CHEM 211. Instrumental Analytical Chemistry. Chemical and physical principles of modern analytical chemistry instrumentation. Prerequisite: 210 and either 218b or 220b. [3] (MNS)

CHEM 212a. Analytical Chemistry Laboratory. Laboratory to accompany Chemistry 210. No credit for graduate students in chemistry. One four-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 210. Prerequisite or corequisite: 210. [1] (No AXLE credit)

CHEM 218a. Organic Chemistry for Advanced Placement Students. Fundamental types of organic compounds; their nomenclature, classification, preparations, reactions, and general application. Prerequisite: enrollment limited to first-year students with advanced placement chemistry scores of 5, or the approval of the director of undergraduate studies. Three hours of lecture and one hour of recitation each week. Equivalent to 220a. No credit for students who have completed 220a or 220b. Corequisite: 219a. [3] (MNS)

CHEM 218b. Organic Chemistry for Advanced Placement Students. Continuation of 218a. Fundamental types of organic compounds; their nomenclature, classification, preparations, reactions, and general application. Prerequisite: enrollment limited to first-year students with advanced placement chemistry scores of 5, or the approval of the director of undergraduate studies. Three hours of lecture and one hour of recitation each week. Equivalent to 220a. No credit for students who have completed 220a or 220b. Corequisite: 219b. [3] (MNS)

CHEM 219a. Organic Chemistry Laboratory. Laboratory to accompany Chemistry 219a or 220a. One four-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 219a or 220a. Prerequisite or corequisite: 219a or 220a. [1] (No AXLE credit)

CHEM 219b. Organic Chemistry Laboratory. Laboratory to accompany Chemistry 218b or 220b. One four-hour laboratory per week. Satisfies the AXLE lab course requirement when completed with 218b or 220b. Prerequisite or corequisite: 218b or 220b. [1] (No AXLE credit)


CHEM 220c. Organic Chemistry Structure and Mechanism. Advanced topics in organic chemistry. Stereochemistry and conformational analysis, mechanisms of organic reactions, linear free-energy relationships, reactive intermediates. Three lectures and one recitation hour per week. Prerequisite: either 218b or 220b and either 230 or 231. [4] (MNS)

