

CHEMISTRY (CHEM)

CHEM 120 Elementary General Chemistry (4 Credit Hours)

Type of credit: Baccalaureate/Transfer

Lecture hours: 3

Lab hours: 2

Prerequisite: MATH 067 with minimum grade of C or Academic placement measures.

A laboratory course emphasizing the general principles and theories of chemistry, including fundamentals of inorganic chemistry, atomic structure and states of matter, bonding, stoichiometry, acid-based concepts, periodicity and solution chemistry. IAI Code: P1 902L. Typical offering schedule: fall, spring, summer

CHEM 123 General College Chemistry I (5 Credit Hours)

Type of credit: Baccalaureate/Transfer

Lecture hours: 3

Lab hours: 4

Prerequisite: CHEM 120 with minimum grade of C or 1 year of High School Chemistry with minimum grade of C. And MATH 166 or MATH 170 with minimum grade of C or concurrent enrollment or Academic placement measures.

Presents the first of a two-semester sequence in general chemistry. This course is for the student planning to major in any science or related field for meeting the general education requirements. Quantitative applications of principles are stressed and the student is expected to have a good background in basic algebra. Topics covered include atomic structure and the periodic table, stoichiometry, types of reactions, thermochemistry, types of bonds, electron and orbital modeling, and introduction to gas, solid, and liquid chemistry. IAI Codes: P1 902L, CHM 911. Typical offering schedule: fall

CHEM 124 General College Chemistry II (5 Credit Hours)

Type of credit: Baccalaureate/Transfer

Lecture hours: 3

Lab hours: 4

Prerequisite: CHEM 123 with minimum grade of C.

Provides a continuation of CHEM 123 with emphasis on acids and bases, chemical equilibrium, rates of reactions, thermodynamics, electrochemistry and a study of the periodic table, as well as an introduction to nuclear chemistry. IAI Code: CHM 912. Typical offering schedule: spring

CHEM 221 Organic Chemistry I (5 Credit Hours)

Type of credit: Baccalaureate/Transfer

Lecture hours: 3

Lab hours: 4

Prerequisite: CHEM 124 with minimum grade of C.

Covers the general principles of atomic and molecular structure, reaction energy transformations, reaction mechanisms, specific reactions and nomenclature for alkanes, alkenes and alkynes and an introduction to aromatic systems. Stereochemistry, free radical mechanisms, substitution mechanisms and elimination mechanisms are covered. IAI Code: Major CHM 913. Typical offering schedule: fall

CHEM 222 Organic Chemistry II (5 Credit Hours)

Type of credit: Baccalaureate/Transfer

Lecture hours: 3

Lab hours: 4

Prerequisite: CHEM 221 with minimum grade of C.

Continues the systematic study of organic chemistry with an emphasis on the aromatic families, alkyl halides, organometallic compounds, amines, aldehydes, ketones, acids, acid derivatives and beta-dicarbonyl compounds; with biological implications. Lab work centers around syntheses related to the theory discussed in lectures. The techniques acquired in CHEM 221 are emphasized in this work. IAI Code: CHM 914. Typical offering schedule: spring