CHEMISTRY (CHE)

CHE 120: Chemistry I (3 credits)
Chemistry I is an introduction to the fundamental facts and principles of chemistry. Topics considered will include: chemical stoichiometry, atomic structure, the periodic table, chemical bonding, thermochemistry, and physical states of matter.
Prerequisite: MAT 112 or a score of 263 or higher on the Accuplacer QAS exam.

CHE 120L: Chemistry I Lab (1 credits)
Laboratory experiences will include experiments that illustrate concepts presented in lecture, as well as introduce the students to experimental design, computer/instrument interfacing, and the statistical treatment of data.
Lab fee: $355
Corequisite: CHE 120

CHE 121: Chemistry II (3 credits)
This course is a continuation of CHE 120. Topics considered will include: solutions, reaction rates, chemical equilibrium, precipitation reactions, acids and bases, reaction spontaneity, redox reactions, and electrochemistry.
Prerequisite: A grade of C or better in CHE 120

CHE 121L: Chemistry II Lab (1 credits)
Laboratory experiences include experiments that illustrate concepts presented in lecture, as well as introduce the student to experimental design, computer/instrument interfacing, and the statistical treatment of data.
Lab fee: $355
Corequisite: CHE 121

CHE 220: Organic Chemistry I (3 credits)
This course is an introduction to the fundamental principles of organic chemistry. Topics covered will include stereochemistry, reaction mechanisms, basic nomenclature, and the recognition of basic functional groups.
Prerequisite: A grade of C or better in CHE120 and CHE121

CHE 220L: Organic Chemistry I Lab (1 credits)
Laboratory exercises will focus on basic techniques of organic synthesis and isolation of organic compounds. Laboratory skills and safety procedures will be stressed.
Lab fee: $355
Corequisite: CHE 220

CHE 221: Organic Chemistry II (3 credits)
This course is a continuation of CHE 220. Topics covered will include an examination of the higher structural classes and functional groups. Organic synthesis and spectroscopic methodologies will be explored.
Prerequisite: A grade of C or better in CHE 220

CHE 221L: Organic Chemistry II Lab (1 credits)
This is a continuation of CHE 220L. Laboratory exercises will focus on the characterization of organic compounds by spectroscopic and chemical techniques.
Lab fee: $355
Corequisite: CHE 221

CHE 300: Analytical Chemistry (3 credits)
This course will cover the theory and practice of quantitative analytical chemistry as well as the interpretation of chemical data. Practical inorganic and organic applications will be examined as well as the use of chemical instrumentation.
Prerequisite: MAT 120, MAT 221, and a grade of C or better in CHE 221

CHE 300L: Analytical Chemistry Lab (1 credits)
Laboratory topics include selected instrumental methodologies for interpreting chemical data. Topics will include acid-base, complexometric, and redox methods as well as titrimetric, electrochemical, and separation methods and spectroscopic techniques.
Lab fee: $355
Corequisite: CHE 300

CHE 310: Physical Chemistry (3 credits)
This course is an exploration of the fundamental physical laws governing the behavior of all chemical systems. Among the topics examined are ideal and real gases, the laws of thermodynamics and their applications to pure substances, mixtures, and chemical reactions.
Prerequisite: A grade of C or better in CHE 221