

# CHEMISTRY (CHM)

## CHM-110 Introduction to Chemistry (3)

Explores atoms, molecules, and how chemical reactions behave by practicing scientific measurements and using fundamental natural laws. Arts & Sciences Elective Code: A; Comments: The lab is optional.

*Hours per week:* 3.0 lecture

*Prerequisite:* One year of high school Chemistry is strongly recommended.

*Pre/corequisite:* Take MAT-052 or MAT-772.

## CHM-111 Introduction to Chemistry Lab (1)

Accompanies CHM-110 as a laboratory. Arts & Sciences Elective Code: A

*Hours per week:* 2.0 lab

*Pre/corequisite:* Take CHM-110.

## CHM-132 Introduction to Organic and Biochemistry (4)

Introduces structure, nomenclature and reactions in organic chemistry as well as the study of life processes including carbohydrate, protein, lipid, nucleic acid metabolism and the interrelationships involved. Arts & Sciences Elective Code: A

*Hours per week:* 3.0 lecture, 2.0 lab

*Prerequisite:* Take CHM-110 or CHM-165.

## CHM-165 General Chemistry I (4)

Studies the basic principles of inorganic chemistry with emphasis on such concepts as measurements and problem solving, chemical reactions and equations, stoichiometry, atomic structure and nuclear models, periodicity, chemical bonding, kinetic molecular theory and gas laws, and the structure and properties of matter. Arts & Sciences Elective Code: A; Comments: CHM-110 or one year high school chemistry highly recommended

*Hours per week:* 3.0 lecture, 2.0 lab

*Prerequisite:* Take MAT-102 or qualify with a placement test score.

## CHM-175 General Chemistry II (4)

Continues General Chemistry I. Studies colligative properties along with thermodynamics and kinetics, chemical equilibrium, electrochemistry, acids, bases and complex ions. Arts & Sciences Elective Code: A

*Hours per week:* 3.0 lecture, 2.0 lab

*Prerequisite:* Take CHM-165.

## CHM-262 Organic Chemistry I (4.5)

Introduces the theory and practice of organic chemistry with emphasis on the chemistry of functional groups. Emphasizes nomenclature, stereoisomerism, chemical bonding, reaction mechanisms, the characterization of hydrocarbons, alkyl halides and alcohols. Teaches appropriate organic chemistry separation, isolation and synthetic techniques through laboratory experiments. Arts & Sciences Elective Code: A

*Hours per week:* 3.0 lecture, 3.0 lab

*Prerequisite:* Take CHM-175.

## CHM-272 Organic Chemistry II (4.5)

Continues the study of ethers, aldehydes, ketones, carboxylic acids and their derivatives, amines and biologically important fats, proteins and carbohydrates. Stresses qualitative organic analysis and spectroscopic methods. Arts & Sciences Elective Code: A

*Hours per week:* 3.0 lecture, 3.0 lab

*Prerequisite:* Take CHM-262.

## CHM-924 Honors Project (1)

Allows a qualified honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an honors project contract. May be taken more than once. Arts & Sciences Elective Code: A; Comments: Permission of instructor and dean

*Hours per week:* 1.0 lecture

## CHM-928 Independent Study (1-1.5)

Allows for a special concentration of study under the guidance of a faculty member. Requires an independent study contract. May be taken more than once. Arts & Sciences Elective Code: A; Comments: Permission of instructor and dean

*Hours per week:* 2.0 lab