

CHEMISTRY (CHM)

CHM 0960 – Introductory Science

Credit Hours: 3.00 Total Contact Hours: 3.00 Lecture Hours: 3.00

Provides an introduction to basic principles in biology and chemistry necessary for entry level science courses. This course is for any student that needs to improve or refresh their foundational knowledge in these areas. This is a credit course and will be counted in student's grade point average; however, it will not count towards graduation requirements or as an elective substitute. The 'C' grade policy applies for a student in a health program.

Offered: Fall, Spring.

CHM 1110 – Introductory General Chemistry

Credit Hours: 4.00 Total Contact Hours: 5.00 Lecture Hours: 3.00 Lab Hours: 2.00

Provides a foundation in basic principles of general chemistry. Topics include methods of measurement, temperature and heat, atomic structure, nuclear chemistry, bonding, nomenclature, gas laws, chemical reactions, stoichiometry, solutions, acid-base chemistry, chemical kinetics and chemical equilibrium.

Offered: Fall, Spring

Transfer: TM

Prerequisites: MTH 0900 or placement.

CHM 1120 – Introductory Organic and Biochemistry

Credit Hours: 4.00 Total Contact Hours: 5.00 Lecture Hours: 3.00 Lab Hours: 2.00

Introduces the fundamentals of organic chemistry and biochemistry, including laboratory applications. The structures and properties of organic compounds classified by functional group, carbohydrates, lipids, amino acids, proteins, and nucleic acids are presented. Students will develop a basic knowledge of organic nomenclature and reaction classes. Relationships between structure, properties, and functionality of compounds are discussed with emphasis on their application in health sciences. This course presumes a foundational knowledge of inorganic chemistry. The 'C' grade policy applies for a degree in a health program.

Offered: Fall, Spring

Prerequisites: CHM 0960 (with 'C' or better) or CHM 1110 (with 'C' or better) or placement.

CHM 1200 – General Chemistry I

Credit Hours: 4.00 Total Contact Hours: 5.00 Lecture Hours: 3.00 Lab Hours: 2.00

Introduces the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties.

Offered: Fall

Prerequisites: CHM 1110 (with a of 'C' or better), MTH 0953 (with a 'C' or better) or placement.

CHM 1210 – General Chemistry II

Credit Hours: 4.00 Total Contact Hours: 5.00 Lecture Hours: 3.00 Lab Hours: 2.00

Designed to provide a foundation in the basic principles of general chemistry. Topics include intermolecular forces, colligative properties, Chemical kinetics, equilibria, acid-base properties, thermodynamics and electrochemistry.

Offered: Spring

Prerequisites: CHM 1200.

CHM 1310 – Organic Chemistry I

Credit Hours: 5.00 Total Contact Hours: 7.00 Lecture Hours: 3.00 Lab Hours: 4.00

Introduces topics of organic chemistry including the study of spectroscopic methods of organic analysis, stereochemistry, structure and bonding and chemical reactions of alkanes, stereochemistry, alkyl halides, organometallic compounds, alkenes, alkynes, alcohol, ethers and epoxides, and aromatic hydrocarbons.

Offered: Fall

Prerequisites: CHM 1210.

CHM 1320 – Organic Chemistry II

Credit Hours: 5.00 Total Contact Hours: 7.00 Lecture Hours: 3.00 Lab Hours: 4.00

Introduces topics of organic chemistry including the study of alcohols, ethers, epoxides, aldehydes, ketones, carboxylic acids, derivatives of carboxylic acids, enolates, carbanions, amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, and polymers.

Offered: Spring

Prerequisites: CHM 1310.