

Chemistry (CHEM)

CHEM 100: Chemistry and Society

Brief introduction to basic principles of chemistry and their relationship to the modern world. This course provides a general education core course for the non-science major. Emphasis will be placed on how science and technology affect the individual, society and the environment. Topics to be treated include: air and water pollution, energy resources, and basics of physical and biochemistry.

Credits: 3

Prerequisites: MATH 82X or higher with a grade of CR or better

Recommended Prep: Concurrent registration in CHEM 100L

CHEM 100L: Chemistry and Society Lab

Introduction to laboratory techniques and experimental methods of chemistry intended for students preparing for careers in non-science fields.

Credits: 1

Prerequisites: CHEM 100 with a grade of C or better or concurrent enrollment.

CHEM 151: Elementary Survey of Chemistry

An introductory course to the fundamental theories and experimental methods of chemistry intended for students preparing for careers in medical technology, nursing, life sciences, and other technical fields. The basic language and quantitative relationships of chemistry are studied, as well as the theories of atomic structure, chemical bonding, structure-property relationships, and chemical reactions.

Credits: 3

Prerequisites: MATH 82X with a grade of CR or Qualification for a STEM track mathematics course

Recommended Prep: Concurrent registration in CHEM 151L

CHEM 151L: Elementary Survey of Chemistry Lab

Introduction to laboratory techniques and experimental methods of chemistry intended for students preparing for careers in medical technology, nursing, life sciences, and other technical fields.

Credits: 1

Prerequisites: CHEM 151 with a grade of C or better or concurrent enrollment.

CHEM 161: General Chemistry I

Basic principles of inorganic chemistry. The first course of a two-course sequence designed to meet the one-year requirement of general college chemistry. Concepts and topics include scientific measurement, chemical math, atomic structure and chemical bonding, the states of matter, and solution chemistry.

Credits: 3

Prerequisites: MATH 103 with grade of C or better.

Recommended Prep: CHEM 151 or High School Chemistry.

CHEM 161L: General Chemistry I Lab

CHEM 161L is a laboratory course which accompanies CHEM 161, the first course of a two-course sequence designed to meet the one-year requirement of general college chemistry. Experiments are performed which relate to the lecture material in CHEM 161. The student will develop practical laboratory skills to competently and safely use laboratory equipment.

Credits: 1

Prerequisites: MATH 103 with a grade of C or better.

Co-Requisites: Credit or concurrent registration in CHEM 161

Recommended Prep: CHEM 151 or High School Chemistry.

CHEM 162: General Chemistry II

The second course of a two-course sequence designed to meet the one-year requirement of general college chemistry.

Concepts and topics include, thermochemistry, kinetics, acid-base equilibrium, solubility equilibrium and electrochemistry with

an emphasis on problem solving.

Credits: 3

Prerequisites: CHEM 161 with a grade of C or better and MATH 135 or higher with a grade of C or better

CHEM 162L: General Chemistry II Lab

CHEM 162L is a laboratory course which accompanies CHEM 162, the second course of a two-course sequence designed to meet the one-year requirement of general college chemistry. Experiments are performed which relate to the lecture material in CHEM 162. The student will develop competency in using laboratory equipment and laboratory report writing skills.

Credits: 1

Prerequisites: CHEM 161, 161L and MATH 135 with a grade of C or better.

Co-Requisites: Credit or concurrent registration in CHEM 162.

CHEM 272: Organic Chemistry I

CHEM 272 is the first semester of a comprehensive study of organic chemistry including: molecular structure, nomenclature, stereochemistry, spectroscopy, reactions, reaction mechanisms, and synthesis of organic compounds. (Formerly lecture part of CHEM 272B.)

Credits: 3

Prerequisites: CHEM 162 or CHEM 162B with grade of C or better or equivalent.

CHEM 272L: Organic Chemistry I Lab

The first semester laboratory course in organic chemistry covering: molecular structure, stereochemistry, spectroscopy, mechanisms, reactions, and synthesis of organic compounds. (Formerly lab part of CHEM 272B.)

Credits: 2

Prerequisites: CHEM 162L with a grade of C or better and CHEM 272 with a grade of C or better or concurrent registration.

CHEM 273: Organic Chemistry II

CHEM 273 is the second semester of a comprehensive study of organic chemistry including: molecular structure, nomenclature, stereochemistry, spectroscopy, reactions, reaction mechanisms, and synthesis of organic compounds. (Formerly lecture part of CHEM 273B.)

Credits: 3

Prerequisites: CHEM 272 or CHEM 272B with grade of C or better or equivalent.

CHEM 273L: Organic Chemistry II Lab

The second semester lab course in organic chemistry covering: molecular structure, stereochemistry, spectroscopy, mechanisms, reactions, and synthesis of organic compounds. (Formerly lab part of CHEM 273B.)

Credits: 2

Prerequisites: CHEM 272L with a grade of C or better and CHEM 273 with a grade of C or better or concurrent registration.