

CHEMISTRY (CHEM)

CHEM 112. Introduction to Forensic Science

Credits: 3

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 112L.

Typically Offered: FALL

An introductory level course designed to be a general education science course. This course introduces basic principles and techniques in chemistry as applied to the criminal investigative process. Topics covered include fingerprints, hair analysis, firearm identification, fiber comparisons, toxicology, and analysis of glass, drugs, blood and DNA. Includes a laboratory section.

CHEM 112L. Introduction to Forensic Science Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 112.

Typically Offered: FALL

Laboratory to accompany Chemistry 112.

CHEM 115. Introductory Chemistry

Credits: 4

Corequisite: Concurrent enrollment in, or previous successful completion of, CHEM 115L.

Typically Offered: FALLSPR

An introductory level course designed to be the first semester of the General, Organic and Biochemistry sequence, introducing fundamental concepts in chemistry. This course introduces topics of measurement, atomic theory, chemical bonding, ionic and covalent compounds, naming, shape, intermolecular forces, states of matter, stoichiometric relationships, solutions, reaction rates, equilibria, and acid-base chemistry. Includes a laboratory section.

CHEM 115L. Introductory Chemistry Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 115.

Typically Offered: FALLSPR

Laboratory to accompany Chemistry 115.

CHEM 116. Introduction to Organic and Biochemistry

Credits: 4

Prerequisite: Passing grade of C or better in CHEM 115 or CHEM 121 within the past three years.

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 116L.

Typically Offered: FALLSPR

An introductory level course designed to be the second semester of the General, Organic and Biochemistry sequence, introducing organic chemistry and biochemistry. This course includes topics on functional groups, nomenclature, organic reactions, proteins, enzymatic action, carbohydrates, lipids, nucleic acids, and metabolism. Includes a laboratory section.

CHEM 116L. Introduction to Organic and Biochemistry Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 116.

Typically Offered: FALLSPR

Laboratory to accompany Chemistry 116.

CHEM 121. General Chemistry I

Credits: 4

Prerequisite: Successful completion of MATH 103 or higher level math with a C or better; Math ACT score or equivalent placement score of at least 24; or departmental approval.

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 121L.

Typically Offered: FALLSPR

A foundational chemistry course designed to be the first semester of the two-semester general chemistry sequence. This course covers topics of atomic structure, stoichiometric relationships, chemical reactions, gas laws, thermochemistry, bonding, and molecular geometry. Includes a laboratory section.

CHEM 121L. General Chemistry I Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 121.

Typically Offered: FALLSPR

Laboratory to accompany Chemistry 121.

CHEM 122. General Chemistry II

Credits: 4

Prerequisite: Completion of CHEM 121 with a grade of C or better.

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 122L.

Typically Offered: SPRSUM

A foundational chemistry course designed to be the second semester of the two-semester general chemistry sequence. This course covers topics of physical states, solutions, reaction rates and mechanisms, chemical equilibrium, acid-base chemistry, thermodynamics, and electrochemistry. Includes a laboratory section.

CHEM 122L. General Chemistry II Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 122.

Typically Offered: SPRSUM

Laboratory to accompany Chemistry 122.

CHEM 241. Organic Chemistry I

Credits: 4

Prerequisite: CHEM 122 with a grade of C or better.

Corequisite: Concurrent Registration in, or previous successful completion of, CHEM 241L.

Typically Offered: FALL

An upper-level course designed to be the first semester of a two-semester sequence covering organic chemistry. This course covers topics of organic structure and bonding, nomenclature, stereochemistry, functional groups, reactivity, and spectroscopy. Includes a laboratory section.

CHEM 241L. Organic Chemistry I Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 241.

Typically Offered: FALL

Laboratory to accompany Chemistry 241.

CHEM 242. Organic Chemistry II

Credits: 4

Prerequisite: C or better in CHEM 241 within the last 3 years.

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 242L.

Typically Offered: SPRING

An upper-level course designed to be the second semester of a two-semester sequence covering organic chemistry. This course continues the study of organic structure and bonding, nomenclature, stereochemistry, functional groups, reactivity, and spectroscopy. Includes a laboratory section.

CHEM 242L. Organic Chemistry II Lab

Credits: 1

Corequisite: Concurrent registration in, or previous successful completion of, CHEM 242.

Typically Offered: SPRING

Laboratory to accompany Chemistry 242.