

Chemistry

Chemistry Classes

CHEM& 110: Chemical Concepts

Development of fundamental chemical principles and laboratory techniques applied to important sustainability concerns such as pollution, climate change and energy resourcing in an increasingly populated planet. While intended for non-science students and not a prerequisite per se, Chemical Concepts benefits students of limited chemistry background seeking STEM degrees. Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

CHEM& 121: Introduction to Chemistry

Inorganic chemistry for allied health students or for individuals needing a general science transfer credit. Includes laboratory. Prerequisites: MATH 099 or a grade of '3' or higher on the Smarter Balanced exam or appropriate assessment score.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

MATH 99 or a grade of 3 or higher on the Smarter Balanced exam or appropriate assessment score

CHEM& 131: Introduction to Organic/Biochemistry

Introductory organic and biochemistry satisfying allied health and transfer agriculture program requirements. A study of the principal functional groups of organic chemistry, nomenclature, physical properties, basic reactions, and their applications to living systems. Covers the principal classes of biomolecules (proteins, carbohydrates, lipids and nucleic acids). Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

[CHEM& 121](#) or equivalent

CHEM& 161: General Chemistry I

A study of the states of matter; foundational atomic, ionic, and molecular structure; mass/mole relationships & stoichiometry; quantification of solution concentration, thermochemistry, fundamental chemical reactions, quantization of electronic distribution and periodicity. Mainly for science majors, engineers and other students requiring one or more years of college chemistry. Laboratory included.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

One year of High School Chemistry or [CHEM& 121](#) and MATH& 141 or equivalent or appropriate math.

CHEM& 162: General Chemistry II

A study of the types of bonding between atoms, molecular structure and geometry, the principal states of matter focusing on liquids, solids, and solutions, rates of chemical reactions, chemical equilibria, and acid-base chemistry. Includes laboratory.

Credits 5

Weekly Contact Hours 6

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

[CHEM& 161](#)

CHEM& 163: General Chemistry III

Acid-base theory and practice, the chemistry of metals and metal cations, including oxidation and reduction potentials and electrochemistry, equilibria related to ion solubility and complex-ion formation. Entropy and free energy applied to equilibrium phenomena. Discussion and measurement of the qualitative and quantitative chemistry of common ions. Includes two weekly laboratories.

Credits 6

Weekly Contact Hours 9

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

[CHEM& 162](#)

CHEM& 261: Organic Chemistry I

The first of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. Topics include structure, nomenclature, physical properties, reactions and synthesis of the main types of organic compounds. Lab included.

Credits 6

Weekly Contact Hours 8

Meets Degree Requirements For

Natural Science with Lab

Prerequisites

[CHEM& 163](#)

CHEM& 262: Organic Chemistry II

The second of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. CHEM& 262 furthers the development of the properties, transformations and identification of organic molecules. Lab included.

Credits 6
Weekly Contact Hours 8
Meets Degree Requirements For
Natural Science with Lab
Prerequisites
[CHEM& 261](#)

CHEM& 263: Organic Chemistry III

The third of a three-quarter sequence in organic chemistry for university transfer, intended primarily for science majors and those fulfilling requirements for professional health science careers such as medicine, dentistry and pharmacy. CHEM& 263 furthers discussion of the properties, transformations and identification of organic molecules, including biomolecules. Lab included.

Credits 6
Weekly Contact Hours 8
Meets Degree Requirements For
Natural Science with Lab
Prerequisites
[CHEM& 262](#)

CHEM 106: Drugs in Society

Explores the basis of drug action, major categories of drugs, as well as risks and benefits of drug use from an individual, social and economic viewpoint. Other topics include historical perspective and ethnopharmacology; delivery, absorption, distribution, metabolism and elimination of drugs; modern drug development and regulation.

Credits 5
Weekly Contact Hours 5
Meets Degree Requirements For
Natural Science