

Chemistry

COURSE DESCRIPTION:

This course adheres closely to standards for the teaching of chemistry. It emphasizes the mathematical, theoretical and experimental basis of modern chemistry. Emphasis is placed on the use of theoretical and mathematical concepts to explain and predict chemical behavior. An overview of the significant learning objectives that are presented in this course include Measurement, Atomic Structure, Chemical Bonding, Conservation of Matter, Stoichiometry, Gases, Acids and Bases, Solutions, Chemical Thermodynamics, Reaction Rates, Chemical Equilibrium, Organic Nomenclature, Biochemistry, and Nuclear chemistry.

PREREQUISITES: This grade 11-12 course requires successful completion of lower level science courses and math skills equal at least to Algebra I

COURSE LENGTH: Two semesters

REQUIRED SOFTWARE: None

COURSE OUTLINE:

Semester 1

- Measurement
- Atoms
- Bonding
- Matter
- Gases
- Acids and Bases
- Solutions

Semester 2

- Thermodynamics
- Rates
- Equilibrium
- Organic Chemistry
- Nuclear Chemistry