

## 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.

### **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**

- Chemistry Fundamentals
- The Scientific Method
- Atoms and the Periodic Table
- Ionic Compounds
- Mole and Chemical Composition
- Semester Exam

#### **Semester 2**

- Chemical Reactions
- Solids, Liquids, and Gases
- Water, Solutions, and the Acid-base Relation
- Reaction Rates and Equilibrium
- Thermodynamics
- Nuclear Chemistry
- Semester Exam