

## Syllabus: Chemistry A for Credit Recovery

This course serves as a foundation for the study of Chemistry. The utilization of scientific inquiry, interactive experiences, higher order thinking, real world application all aid the student in ultimately demonstrating a vast understanding of the importance of Chemistry in the world around them; enabling them to apply these properties to their everyday lives.

### Segment I

#### Module 00 Getting Started

- Things to Know
- Navigation
- Lessons & Assessments
- Course Specifics
- Online Learning 101
- Pace
- Academic Integrity

#### Module 01 Chemistry and You

- Module One Pretest
- Chemistry and You
- Matter and Measurements
- Energy and Temperature
- Unit Conversions
- Accuracy and Precision
- Discussion-Based Assessment and Module One Exam

#### Module 02 The Atom

- 02.00 Module Two Pretest
- 02.01 History of the Atomic Model
- 02.02 Properties of the Atom
- 02.03 Isotopes and Weighted Averages
- 02.04 The Mole and Conversion
- 02.05 Electron Arrangement and EMR
- 02.06 Electron Configurations
- 02.07 Discussion-Based Assessment and Module Two Exam

#### Module 03 Compounds

- 03.00 Module Three Pretest
- 03.01 History of Periodic Table
- 03.02 Group Names and Properties
- 03.03 Periodic Trends
- 03.04 Valence Electrons and Bonding
- 03.05 Ionic Bonding and Writing Formulas
- 03.06 Covalent Bonding and Lewis Structures

- 03.07 Intermolecular Forces
- 03.08 Naming Compounds
- 03.09 Molar Mass of Compounds
- 03.10 Discussion-Based Assessment and Module Three Exam

#### **Module 04 Reactions**

- 04.00 Module Four Pretest
- 04.01 Chemical vs. Physical Properties and Changes
- 04.02 Balancing Equations
- 04.03 Types of Chemical Reactions
- 04.04 Stoichiometry
- 04.05 Limiting Reactant
- 04.06 Percent Yield
- 04.07 Discussion-Based Assessment and Module Four Exam
- 04.08 Segment One Exam

#### **Course Assessment and Participation Requirements:**

To achieve success, students are expected to submit work in each course weekly. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers. When teachers, students, and parents work together, students are successful.