

Chemistry 11 at Alexander Academy for School Year 2013/2014

Chemistry 11: Course Outline

Chemistry 11 course is split into 7 major topics found in the field of Chemistry: Skills and Processes of Chemistry, The Nature of Matter, Mole Concept, Chemical Reactions, Atomic Theory, Solution Chemistry, and Organic Chemistry.

Topics	About
Skills and Processes of Chemistry	Students will learn to make observations in a safe and systematic manner and will collect and record data according to standard scientific technique, with special attention to significant figures and uncertainty.
The Nature of Matter	Students will be able to perform simple mixture separations and analyse data to distinguish and identify elements, compounds, and mixtures based on their chemical and physical properties.
Mole Concept	Students will be able to relate the concept of the mole to the quantitative properties of matter.
Chemical Reactions	Students will be able to explain changes to matter that occur in chemical reacting systems, use the mole ratio from balanced equations to calculate quantities of materials produced and consumed, and describe energy changes that occur during a physical or chemical change.
Atomic Theory	Students will be able to relate the structure of the atom and the use of the periodic table to observed behaviours and trends in properties of various elements and will explain the significance of covalent and ionic bond types for simple compounds.
Solution Chemistry	Students will be able to demonstrate and explain solution formation, solubility, and the interactions between solute and solvent.
Organic Chemistry	Students will be able to demonstrate an awareness of the variety and complexity of organic chemical systems, with specific reference to various functional groups.

Course Description:

The course consists of lecture sessions as well as laboratory investigations. During lecture sessions, students will work on obtaining the necessary knowledge to master the BC Chemistry 11 curriculum. This knowledge will be gained through note taking, class discussion, group work, hands-on activities as well as homework/classroom problems. During the laboratory sessions, students will apply the concepts and skills learned in the lectures to develop and master the essential laboratory techniques.

Assessment:

It will consist of questions from a textbook as well as worksheets/handouts, quizzes, assignments, and unit tests. Grade categories and weights are yet to be determined and can change during the school year.

Class expectations and equipment:

All students will be expected to participate in all activities and laboratory investigations and to challenge themselves to work with a wide range of different people. They will also be encouraged to attempt alternative presentation techniques for their work. All students will be expected to keep a neat binder comprising of all their class work and assessments.

Students will need: a calculator (scientific or graphing), colored pens and pencils, scissors, rulers, and binders.

Textbook:

BC Chemistry 11 will be used. Supplemental materials (if needed) will be provided by a teacher.