**Grade 11 Chemistry (CH30S) Course Description**

The Grade 11 Chemistry course builds upon chemistry topics taught through grades 9 and 10 science. Many of the understanding and skills that you have previously learned (such as atomic structure, chemical reactions, naming & formula writing) will be used as you solve problems and learn new skills along the way.

This course will help you develop the skills, ideas, and confidence you will need to continue your studies in grade 12 chemistry.

**Course Modules:**

Below is a breakdown of the course modules and topics:

* **Module 1 (Physical Properties):**
	+ States of matter
	+ Kinetic molecular theory
	+ Changes of state
	+ Vapour pressure
* **Module 2 (Gases & the Atmosphere):**
	+ History of the atmosphere
	+ History of the study of gases & pressure.
	+ Pressure, volume & temperature relationships in gases
* **Module 3 (Chemical Reactions):**
	+ Isotopes
	+ Naming & formula writing
	+ Predicting products of chemical reactions
	+ The mole
	+ Conversions between moles, mass, particles and volume of gases.
	+ Empirical & molecular formulas
* **Module 4 (Stoichiometry):**
	+ Mole ratios
	+ Stoichiometry problems involving moles, mass, and volume
	+ Limiting reagent problems
* **Module 5 (Solutions)**
	+ Solution types
	+ Polar & Non-polar solutions
	+ Factors affecting solubility & solubility rules.
	+ Solubility curves
	+ Concentration, dilutions & mixing solutions
	+ Concentration applications
* **Module 6 (Organic Chemistry)**
	+ Introduction to carbon chemistry
	+ Naming & drawing alkanes, alkenes, alkynes
	+ Isomers
	+ Aromatic hydrocarbons
	+ Naming & drawing alcohols & organic acids
	+ Esters & Esterification reactions

**Evaluation:**

Each learning module is assessed by approximately 5 assignments and a test. Final grades are broken down as follows:

* Assignments – 40%
* Tests – 50%
* Final Exam – 10%

**Class Schedule:**

Due dates for assignments and tests are pre-scheduled to help students stay on track with the timing of the course. To stay on pace with the course, students can expect to spend about 1 hour each day working through the course content, assignments and tests.

Each Module consists of multiple lessons that cover the content of the course. Lessons consist of content information and explanations, video lessons & tutorials, learning activities and practice exercises.

As students work through the course, they are encouraged to email their teacher if they have questions about any of the content or practice questions.

**Required Materials**

Students will need the following:

* Computer with working camera/microphone
* Scientific Calculator
* Pen/Pencil
* Eraser
* Paper
* Graphing software (Microsoft Excel, Vernier Graphical Analysis)