

**CHEMISTRY 11 COURSE OUTLINE. EVALUATION & CLASS EXPECTATION GUIDE**

TEXTS: Chemistry11. McGraw-Hill Ryerson., Toronto, 2001  
Heath Chemistry Laboratory Experiments, D.C. Heath Canada Ltd., 1987  
 Hebden, James A. Hebden: Chemistry 11 A Workbook for Students, Kamloops, Hebden Home Publishing, 1998  
BC Science Chemistry 11, Davidson, Gary et al, Edvantage Interactive, Sydney BC, 2011

INSTRUCTOR: H. Buhl

INTRODUCTION: What is Chemistry 11 - a course overview. Laboratory Safety

(Approx. time, subject to change)

Unit 1.3 SI Metric Units. Significant Figures. Graphing Skills. Scientific Notation.  
 (4 hours)

Unit 2 Matter / Classification- Phase Changes. Nomenclature.  
 (2-3 hours)

Unit 4 The Mole Concept. Empirical Formulas. Molarity. Molar Volume. % Composition.  
 (12 hours)

Unit 5 Balancing Chemical Equations. Classifying Reactions. Predicting Products.  
 (5 hours)

Unit 6 Stoichiometry: Mass/Mole/Mass Calculations. Limiting Reagent. % Yield. Enthalpy.  
 (23 hours)

Optional Unit 7 Gas Laws. Partial Pressure. (often not done)  
 (2-3 hours)

Unit 8/9 Atomic Structure. Balancing Nuclear Equations. Atomic Mass of Isotopes.  
 (5 hours) Nuclear Symbols.

Unit 10 Electron Configuration of Ions and Neutral atoms. Predict most stable Configuration  
 (6 hours) including the "d" block.

Unit 11 Periodic Table Trends. -Ionization Energy, -Electronegativity, -Atomic Radii, Reactivity.  
 (4 hours)

Unit 12 Bonding Ionic vs. Covalent. Using Electronegativity to predict type of bond. Lewis Dot  
 (10 hours) Diagrams. Predicting Bond Order. VSEPR Theory. Predicting Molecular Shape.

Unit 16 Solutions. Calculating Molarity. Common Ion Effect. Dilution Effect. Using Solubility  
 (11 hours) Charts to Identify the Precipitate.

Unit 20 Acid / Base. Molarity Calculations. Mole Calculations resulting from Titrations.  
 (11 hours)

Unit 23 Organic Chemistry Nomenclature for Straight Chain, Branched and Functional Groups.  
 (10 hours) Classifying by Functional Groups. Alcohol Plus a Carboxylic Acid gives the Aldehyde Reaction.

**LABORATORY EXPERIMENTS**

We will do as many labs as time allows. Doing as much work (readings, Homework questions and studying) at home as possible will free up more class time for doing labs. Not all labs will require formal lab write-ups. Safety is of the utmost importance in the chemistry lab since there are many hazards present. Chemicals, acids, gas, broken glassware are all possible hazards. Any student who does not demonstrate an ability to work with the safety of him/herself and his/her classmates in mind will not be allowed in the chemistry lab. **Note: Students will be charged for broken glassware.**

EXPECTATION GUIDE

- YOU ARE HERE TO LEARN.** Please DO work hard, be respectful of each other (and me), be responsible, and be positive. You will be successful.
- BRING YOUR MATERIALS.** Please DO bring a pen, pencil, eraser, ruler, two inch D-ring binder as a notebook, paper and scientific calculator, perhaps in a useful pencil case. Every day! Put your name on all of your belongings. Bring the textbook to every class. We will use it as a reference for readings and for extra questions. Bring the lab book when we do a lab. Take care of the text and lab manual, you are responsible for them.
- ATTENDANCE IS REQUIRED.** Please arrive and be ready with notebooks and textbooks open for class BEFORE the bell. **All** absences require a **written note** from: Doctor/Dentist/Parent/Legal Guardian/Relative.

EVALUATION:

|               | Classmarks |             |
|---------------|------------|-------------|
|               | Term       | End of Term |
| Unit tests    | 70%        | 52.5%       |
| Classwork     | 20%        | 15%         |
| Understanding | 10%        | 7.5%        |
| Term Marks    | 100%       | 75%         |
| Final Exam    |            | 25%         |

**LATE ASSIGNMENTS** Late assignments are always due. They will be marked fairly allowing for extra time taken and whether or not it has already been handed back. Once late, do not expect as quick a return as when it is handed in on time. 😊

Quizzes will be given frequently (3-5 per week). They will not necessarily be announced in advance.

(See attendance required above)

**Homework:** Homework will be assigned daily and must be done to give practice needed to master skills. Mastery reached translates into the ability to teach it to another person.

**Website:** [buhl.yolasite.com](http://buhl.yolasite.com)

Parents and students can follow the course at this site. At different times, marks and unit exams results will also be found in the correct class folder

I have read this outline and recorded the above website address to follow my son's/daughter's progress in this class. Please sign below and have your student return it to me for marks. You may tear off the web address below

\_\_\_\_\_  
Parent signature.

\_\_\_\_\_  
Print Student Name

Mr. Buhl's website: [buhl.yolasite.com](http://buhl.yolasite.com)