Chemistry 11 (4 credits)	Course Outline	2021-2022

Teacher: Mr. D. Hammond David.hammond@sd8.bc.ca 250 825 2168

Welcome to Chemistry 11!

Throughout this course, you will explore five Big Ideas, Content and Curricular Competencies as set by the BC Curriculum [https://curriculum.gov.bc.ca/curriculum/science/11/chemistry]. The five Big Ideas are:

- **Atoms and molecules** are building blocks of matter.
- **Organic chemistry** and its applications have significant implications for human health, society, and the environment.
- The **mole** is a quantity used to make atoms and molecules measurable.
- Matter and energy are conserved in **chemical reactions**.
- **Solubility** within a solution is determined by the nature of the solute and the solvent.

Course Overview

Practice Assignments: Each chapter in your workbook has practice questions which includes an answer key. You are required to complete the assigned questions, showing all of your work. These assignments will be graded on completeness, as well as accuracy.

Tests/Projects: At the end of unit, there is a summative task which may take either the form of a test or project.

Tests are to be written in the classroom under supervision. You may bring in a study sheet -- single sided 8.5'' by 11'' piece of paper -- as well as a periodic table of elements. You may have no help on your test. If you wish to improve your grade on a test, you may do corrections. If you do the corrections on your own you can improve your test mark by up to 10%.

In lieu of a test, you *may* choose to do a project. It must clearly communicate your learning and understanding of concepts covered in a particular unit. Be sure to discuss your ideas/plans with your teacher so that your project may be approved.

How To Be Successful

1. Take good, organized notes for your own reference as you learn new concepts.
2. Complete unit assignments and compare your answers to the answer key in the back of your textbook.
3. Correct your mistakes!
4. Write the unit test only after you have completed and corrected the unit assignment. This way you can use your assignment as a review.
5. One-on-One Help is available! If you need assistance, please don't hesitate to contact me via email or phone to ask a question or to set up a one-on-one appointment. We can do this in person or we can meet online using Zoom. Remember, I am your teacher and I'm here to help.

Substantive Activity (Measurements, conversions and uncertainty)

In order to be officially activated in this course you must first complete a substantive activity. For this activity you will complete the assignment and test for Unit 1: "Measurements, conversions and uncertainty". In this introductory unit, you will learn and practice some skills which will be foundational in analyzing/solving a wide variety of chemistry problems related to these Big Ideas, Content and Curricular Competencies:

Big Ideas	• The **mole** is a quantity used to make atoms and molecules measurable. • Matter and energy are conserved in **chemical reactions**. • **Solubility** within a solution is determined by the nature of the solute and the solvent.
Content	• Dimensional Analysis • Stoichiometric calculations (including aqueous solutions)
Curricular Competencies	• Use appropriate SI units and appropriate equipment, including digital technologies, to systematically and accurately collect and record data • Apply the concepts of accuracy and precision to experimental procedures and data: ▪ significant figures ▪ uncertainty ▪ scientific notation

Resources

- Chemistry 11 (Hebden, 1994), web-based resources

Course evaluation:

For each topic, students complete an assignment as they familiarize themselves with new concepts. At the end of each unit, students complete a summative task which may take the form of a test and/or project. Projects can be designed by both the student and teacher.

Final Grade Course Calculator

Substantive Activity 7%	X 0.07 =	
Assignments 18%	X 0.18 =	
Tests/projects 75%	X 0.75 =	
Final Grade		

Course Organization

Chemistry 11 is divided into 9 units as shown below (along with suggested times for each unit). Note that once the substantive activity is complete, the time allotted for the remainder of the course is 16 weeks. Students may choose to complete a teacher-approved project in lieu of a test.

Unit	Suggested time (1 week = 7.5 hours)	Assessments	Weight	Mark
1. Substantive Activity (Measurement,Conversions and Uncertainty)	7.5 hours (1 week)	Assignment	2%	
		Test	5%	
Assignment: Chapter II -- 2acegi, 3, 6, 9, 10, 15acegik, 16bd, 17acekmo, 18a, 29ac, 30, 31, 32, 33, 37, 42, 43, 44, 46, 47, 48ace, 49a, 50aceg, 51ace, 52, 55acegi, 56acegik, 57acegi, 58acegi, 29aceg				
2. The Physical Properties & Physical Changes of Substances	7.5 hours (1 week)	Send-in Assignment	2%	
		Test (or project)	5%	
Assignment: Chapter III --1, 2, 3, 11, 13, 15, 18, 19, 33, 34, 35, 36, 38, 39, 41, 42, 44, 45, 47, 53, 55, 56, 59, 60, 61, 62, 64, 66, 67, 68				
3. Inorganic Nomenclature	10.5 hours (2 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter IV -- Page 66 self test, 1, 2, 3, 4, 5, 6, 7, 8, 9, 14-162 (even only)				
4. The Mole Concept	15 hours (2 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter V -- 1, 2, 4, 6ackmo, 7a, 8achj, 9acegj, 10ad, 11a, 12ab, 15aceg, 16a, 17ac, 18ace, 21ace, 22abegi, 23acdjk, 24abdh, 25, 27, 32, 44ack, 46ae, 47, 52, 54, 56, 57, 59ad, 60a, 62, 66, 68, 70, 78, 81, 82, 84, 87, 89, 91				
5. Chemical Reactions	15 hours (2 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter VI -- 1ab, 4abc, 5, 6a, 7-53 (odd only), 57acd, 58, 60, 62, 63, 65ace, 66abcdefghijkl, 67acegikmoq, 70, 72, 73, 74, 77, 78				
6. Stoichiometry	15 hours (2 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter VII -- 2, 3, 7, 8, 10, 11, 12, 14, 17, 18, 20ab, 22ab, 24ab, 26, 28, 30, 31				
7. Atoms and the Periodic Table	22.5 hours (2..5 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter VIII -- 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 19, 22, 23f, 26acegikmo, 27ikmo, 28acegik, 29acegikmo, 31, 32, 33, 35, 36, 37, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 53, 58, 59, 60, 61, 62, 63, 65, 66, 69, 70, 72acegik, 74, 75, 70aceg, 85ab, 86adgjpwx, 88, 89, 91, 95, 96, 97, 98, 100, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 120, 121, 122, 124, 126, 127, 128, 129, 130				
8. Solution Chemistry	15 hours (2 weeks)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter VIII -- 2, 3, home experiment (part 1 & 2), 5(all), 6, 7, 8acegikmoqsux, 9, 10aceg, 14bdfh, 17, 18, 22abc, 23ghij, 24bdfh, 25, 28aceg, 30, 31, 32, 33, 34, 35, 36, 37, 38				
9. Organic Chemistry	22.5 hours (2.5 week)	Send-in Assignment	2%	
		Test (or project)	10%	
Assignment: Chapter X -- 1, 2ac, 3ace, 4ab, 5ace, 6abcd, 8acegik, 9abcde, 18abcde, 21, 22ab, 23ab, 24aceg, 25ace, 29a, 30abc, 31ace, 32ac, 33a, e34abc, 35ac, 37acegikmoqs, 38acegikmoq, 39abcdefghi, 44acegikmoqsu				
		Final Grade	100%	