

Worsley School 2008

# **CHEMISTRY 20 VC WITH MR. PHELPS**

## **Course Outline**

### **COURSE PHILOSOPHY**

Through the study of Chemistry, learners are given an opportunity to explore and understand the natural world and to become aware of the profound influence of chemistry in their lives. Chemistry, as with all sciences, is an experimental discipline requiring creativity and imagination. Methods of inquiry characterize its study. In Chemistry 20, students further develop their ability to ask questions, investigate and experiment; to gather, analyze and assess scientific information; and to test scientific laws and principles and their applications. In the process, students exercise their creativity and develop their critical thinking skills. Through experimentation and problem solving activities that include the integration of technology and independent study, students develop an understanding of the process by which scientific knowledge evolves.

### **COURSE OBJECTIVES**

According to the Program of Studies, the major goals of the Chemistry 20-30 curriculum are:

- To develop in students an understanding of the interconnecting ideas and principles that transcend and unify the natural science disciplines
- To provide students with an enhanced understanding of the scientific world view, inquiry and enterprise
- To help students attain the level of scientific awareness essential for all citizens in a scientifically literate society
- To help students make informed decisions about further studies and careers in science
- To provide students with opportunities for acquiring knowledge, skills and attitudes that contribute to personal development.

### **GENERAL EXPECTATIONS**

- **Regular attendance** - To be successful in Chemistry 20, the student must be attending classes and completing the work associated with learning the concepts and skills of the course. The student is responsible for getting notes and doing the work that was assigned if they are absent/late. If the student knows that they will be away, please notify the teacher so the student can pick up their work so they do not fall behind.

· **Arrive on time/Be prepared** - It is expected that you are in your desk ready to start class when the bell goes. If you are unable to avoid being late, please enter the classroom with a minimum of disruption. Books, pencils, calculators, data booklets, etc. are to be brought to class everyday. Handouts, quizzes, assignments, notes and exams are to be kept in order in a binder.

· **Work Habits** - It is expected that the students use their class time to the best of their abilities for the whole period every class. I expect everyone to be listening when I am providing instruction. Please raise your hand and ask questions at any time during the class. Respectful behaviour is a necessity to all members of the class and shall be reciprocated.

· **Homework/Exams** - Homework assignments are due at the beginning of each class. It is the student's responsibility to make up for any work missed during an absence. If an exam or quiz is missed due to an absence, the student must write the exam the day they return to school.

**Re-writes** are available upon request and will only be given when all of the following conditions are met:

- i. The original exam/quiz is corrected, on a separate sheet of paper, and an explanation is provided for why the new answer is correct.
- ii. All assignments given prior to the exam/quiz are complete and submitted.
- iii. The student will complete the re-write at lunch and they must arrange to write in an area with teacher supervision.
- iv. The re-write must occur within one week of receiving the original marked test.
- v. The mark on the second exam/quiz will be the final mark given even if a worse mark is obtained.

· **Late Homework** - Late homework will be accepted until given a designated cut-off point. Late work will result in getting behind so students are strongly encouraged to complete work on time. If you are absent and unable to hand in the homework, you will be expected to hand it in immediately upon your return.

· **Help Sessions** - Chemistry 20 is an extension of subject matter presented in Science 10. The concepts from the previous course are essential and will form the base for knowledge taught in Chemistry 20. If you experienced any particular weakness in Science 10, you

should make arrangements to work after school in tutorial sessions. Extra help is available during lunch and after school by appointment.

· **Attitude** - Another necessity for this course is independence and accountability. You are responsible for keeping up with the homework, asking for help if needed, and studying for tests. This class is preparing you for post-secondary education, which requires all of these.

### **Tentative Schedule**

**The following is the course outline listing the approximate percentage of time spent on each unit, the approximate time line, general concepts (from Alberta program of studies), and related chapters in the textbook.**

**1. Review of Science 10 Chemistry:**

Chapters 1 – 2     Sept 2<sup>nd</sup> – Sept 12<sup>th</sup> (9 days)

**2. Unit A: The Diversity of Matter and Chemical Bonding (20%)**

Chapter 3     Sept 15<sup>th</sup> – Oct 7<sup>th</sup> (15 days)

General Outcomes:

- Describe the role of modeling, evidence and theory in explaining and understanding the structure, chemical bonding and properties of ionic compounds.
- Describe the role of modeling, evidence and theory in explaining and understanding the structure, chemical bonding and properties of molecular substances.

**3. Unit B: Forms of Matter: Gases (16%)**

Chapter 4     Oct 8<sup>th</sup> – Oct 27<sup>th</sup> (13 days)

General Outcomes:

- Explain molecular behaviour, using models of the gaseous state of matter.



OR

Go to [www.albertachemistry.com](http://www.albertachemistry.com) and click on 'student resources centre'

Both of these sites provide access to practice tests, diploma style questions, animations, and a variety of weblinks to help supplement your studies.

### Evaluation:

Category	Unit A	Unit B	Unit C	Unit D	Final
	Chemical Bonding	Gases	Solutions (Acids/Bases)	Quantitative Relationships	
Assignments, Labs & Homework	40%	40%	40%	40%	-
Quizzes & Research Papers	20%	20%	20%	20%	-
Unit Tests	40%	40%	40%	40%	-
Unit Total Marks	100%	100%	100%	100%	-
Final Mark	14%	12%	22%	22%	30%

### TEACHING TECHNIQUES

The methods used for instruction will include lecture, question and answer discussion, small group work, individual tutorials, laboratory work combined with a variety of multi-media utilities. Extra help is available during lunch and after school. Please feel free to ask and make arrangements for help. If you have any questions with the information contained in this course outline, please contact me at the school.

**Darren Phelps** Phone: (780)685-3842 E-mail: [phelpsd@prsd.ab.ca](mailto:phelpsd@prsd.ab.ca)

---

## **STUDENT INFORMATION**

I ask that students complete and return this section of the outline to acknowledge that they are informed of the information pertaining to this course. The email address is used for occasional contact if needed. Email is a very **easy, quick and unobtrusive** manner for me to contact you and keep you informed. Please feel free to email me as well.

Please fill in the following information:

**Student Name:** \_\_\_\_\_

**Student E-Mail:** \_\_\_\_\_ **or Phone**  
\_\_\_\_\_