

	<p>SCHOOL OF ARTS & SCIENCE CHEMISTRY AND GEOSCIENCE DEPARTMENT</p> <p>CHEM 060-001</p> <p>2011 Spring</p>
---	--

A. General Information

Instructor: John Lee

Office - Fisher 352 Telephone: 3909

E-mail: leejohn@camosun.bc.ca

Email is my preferred method of communication however any problems with course material/questions should be addressed in person.

Lectures:

Lectures: Monday, Wednesday (F322), 2.30 pm – 3.20 pm; Tuesday and Thursday (F322) 2.30 pm-5.20 pm.

Lab:

Monday, Wednesday (F354), 3.30 pm – 5.20 pm

Office Hours: TBA

Important Dates: May 16th: Fee deadline, May 23rd: Victoria Day (College closed). June 8th: Last day to withdraw without a failing grade. June 27th -29th: Exam period.

B. Required Materials for the Course

Principal Text: CHEM 060, Course Pack, Camosun College (In-House) available in the Bookstore (cost approximately \$30)

It is essential that all students have a copy of this manual. Laboratory Safety glasses mandatory.

C. Course Content and Schedule

The course includes:

- a) 6 in-class review quizzes (always Thursdays apart from quiz 6). (May 12th, 19th, 26th, June 9th, 16th, 21st)
- b) One 2 hour written midterm test in week IV. (Thursday June 2nd)
- c) A 3 hour written final examination at the end of the course on all the material in the course.

D. Summary of Lecture Material with Page References

Subject	Material Covered	Classes (approximate)	Course Notes pages
Measurements and Calculations	Units, dimensional analysis, scientific notation, sig figs, density and energy calculations	4	1-19
Atoms, ions and molecules, Mixtures, compounds and elements	Physical and chemical changes, elements, compounds and mixtures, The atom, isotopes, ions, periodic table	4	29-44
Naming compounds	Chemical Formula and names, naming molecular and ionic compounds	4	49-67
The Mole	Molecular mass, % composition, converting grams to moles to number of molecules	4	74-87
Stoichiometry	Balancing chemical equations, limiting reactants, % yields and heat of reactions	6	93-115
Periodic table and electron distribution	Electron shells and orbitals for the first 20 elements, ionization energy and chemical properties. Atomic spectra	4	120-139
Gases	Kelvin scale, Gas volume and temperature, gas volume and pressure, partial pressure, gas stoichiometry	6	170-184
Liquids and Solutions	Solution stoichiometry and concentrations	4	191-213
Organic Chemistry	Hydrocarbons, naming simple alkanes, structural isomers	4	221-240

Notes

1. There are recommended worksheets for each chapter. These worksheets will not be marked but solutions will be emailed out.
2. The midterm test will be on material covered in the half of the course. It will take place on Thursday June 2nd in F322.
3. The in class quizzes will be on material covered in the previous week. They will be given at the start of class, answers will be given after the quiz.

E. Basis of Student Assessment (Weighting)

The course mark will be derived in the following manner:

6 Quizzes	(3% each) = 18 %
1 Midterm test	18 %
Final	39 %
Laboratory work	25 %

If it is advantageous to the student the theory mark will be solely derived from the final examination, or the combination of midterm/quiz and final.

In the event of a quiz or midterm test being missed due to illness/other, the weight of the missed quiz/test will be carried over to the final exam.

F. The Laboratory Mark

Students must **complete a minimum of 4 of the 6 Labs** and score a **minimum of 50%** on the Labs to pass the course **NO EXCEPTIONS**. If students miss a lab class they should try and attend the lab session with the other stream, or obtain data to write the report. If no reason for missing a lab class is supplied, either by email or in person, a mark of zero will be given for the missed lab.

The lab mark is based on attendance and the laboratory report. A student that attends the laboratory class but does not present a written report will receive a score of 50%.

Students are responsible for obtaining their own safety glasses. Laboratory jackets are available from the bookstore and are recommended, especially if the student is to pursue further chemistry courses.

G. The Grading System

Grading System, Standard (GPA)

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. <i>(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)</i>
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

1. You must score a minimum of 50 % on laboratory work to be permitted to take the final exam and participate in 4 of 6 lab classes.
2. You must pass both the **lecture portion and the laboratory portion** in order to pass the course.

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

John Lee Spring 2011 Lab Schedule:**Chem 060 (001) – Mondays/ Wednesdays, 3:30-5:20 pm in Fisher 354**

Week Number	Experiment	Date:
I May 9th	Lab Safety: Attendance Mandatory*	Monday May 9th
I	Experiment 1: Density measurements Gp. A	Wednesday May 11th
II May 16th	Experiment 1: Density measurements Gp. B	Monday May 16th
II	Experiment 3: Separating mixtures Gp. A	Wednesday May 18th
III May 23rd	No Lab Victoria Day	Monday May 23rd
III	Experiment 3: Separating mixtures Gp. B	Wednesday May 25th
IV May 30th	Experiment 4: Heat of Combustion Gp. A	Monday May 30th
IV	Experiment 4: Heat of Combustion Gp. B	Wednesday June 1st
V June 6th	Experiment 5: Recycling Copper Gp.A	Monday June 6th
V	Experiment 5: Recycling Copper Gp. B	Wednesday June 8th
VI June 13th	Experiment 7: Copper and Silver Nitrate/Alkali metals Gp. A	Monday June 13th
VI	Experiment 7: Copper and Silver Nitrate/Alkali metals Gp. B	Wednesday June 15th
VII June 20th	Experiment 14: Aspirin/Slime Gp. A	Monday June 20th
VII	Experiment 14: Aspirin/Slime Gp. B	Wednesday June 22nd

In the event of missing the Lab Safety presentation students are responsible for watching the (30 minute) safety DVD, available from the technician's office prior to their first experiment.