CAMOSUN COLLEGE	***SCHOOL OF ARTS & SCIENCE*** ***CHEMISTRY AND GEOSCIENCE DEPARTMENT*** **CHEM 060-02** **2011 Winter**

A. General Information

Instructor: John Lee

Office - Fisher 352/348A. Telephone: 3909

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

Lectures:
Lectures: Tuesday, Wednesday, Thursday and Friday (E 201), 12.30 pm – 1.20 pm

Lab:
Monday (F 300): 12.30 pm – 2.20 pm

Office Hours: TBA

Important Dates: January 24th Fee deadline, February 24th & 25th : Reading Break/Connections Day (College closed). March 14th: Last day to withdraw without a failing grade. April 18th - 21st and April 26th -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.

C. Course Content and Schedule

The course includes:

a) 6 in-class review quizzes. (January 25th, February 8th, 22nd, March 15th, 29th April 12th)

b) One 2 hour written midterm test. (March 7th)

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**
***Radioactivity**	Alpha, beta and gamma decay, half life calculations	**4**	**247-256**

*** Time permitting**

Notes

1. There are recommended questions found after each chapter. These problem sets will not be marked but solutions may be found at the end of the coursepack.

2. The midterm test will be on material covered in the half of the course. It will take place during the lab period (March 7th)

3. The in class quizzes will be on material covered in the previous 2 weeks. 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 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 5 of the 6 Labs** and score a **minimum of 50%** on the Labs to pass the course. 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.

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 and laboratory jacket from the bookstore.

G. The Grading System

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

Standard Grading System (GPA)

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	*Incomplete*: 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	*In progress*: 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. *(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)*
CW	*Compulsory Withdrawal:* 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 5 of 6lab 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 Winter 2011 Lab Schedule:

Chem 060 (002) – Mondays, 12:30-2:20 pm in Fisher 300

Week Number	Experiment	Date: (Monday)
I Jan 10th	Lab Safety Attendance Mandatory	Jan 10th
II Jan 17th	Experiment 1: Density measurements Gp A	Jan 17th
III Jan 24th	Experiment 1: Density measurements Gp B	Jan 24th
IV Jan 31st	Experiment 3: Separating mixtures Gp A	Jan 31st
V Feb 7th	Experiment 3: Separating mixtures Gp B	Feb 7th
VI Feb 14th	Experiment 4: Heat of Combustion Gp A	Feb 14th
VII Feb 21st	Experiment 4: Heat of Combustion Gp B	Feb 21st
VIII Feb 28th	Experiment 5: Recycling Copper Gp A	Feb 28th
IX Mar 7th	MIDTERM TEST IN F300/354	Mar 7th
X Mar 14th	Experiment 5: Recycling Copper Gp B	Mar 14th
XI Mar 21st	Experiment 7: Copper and Silver Nitrate/Alkali metals Gp A	Mar 21st
XII Mar 28th	Experiment 7: Copper and Silver Nitrate/Alkali metals Gp B	Mar 28th
XIII Apr 4th	Experiment 14: Asprin/common substances Gp A	Apr 4th
XIV Apr 11th	Experiment 14: Asprin/common substances Gp B	Apr 11th