

	<p>SCHOOL OF ARTS & SCIENCE CHEMISTRY AND GEOSCIENCE DEPARTMENT</p> <p>CHEM 100-004</p> <p>2011 Fall</p>
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A. General Information

Instructor: John Lee

Office - Fisher 352, Phone: local 3909, twitter: *johnatcamosun*

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:

Tuesday, Wednesday, Thursday and Friday (E201), 9.30 am – 10.20 am;

Lab:

Monday (F300), 9.30 am – 11.20 am

Office Hours: Tuesday, Wednesday, Thursday and Friday 10.30 am to 11.30 am

Important Dates: September 20th: Fee deadline, October 10th: Thanksgiving (College closed).
 November 8th: Last day to withdraw without a failing grade. November 11th: Remembrance Day
 (College closed). December 12th or 13th Exam day.

B. Required Materials for the Course

Principal Text: CHEM 100, 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, 30 minute review quizzes (always Thursdays). (September 15th, 29th, October 13th, 27th, November 10th, 24th). Quiz dates may change at Instructor's discretion, advance notice will be given.
- b) A 2 hour written midterm test in week . (Monday October 24th)
- 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 graded. The worksheets will be distributed in class and can also be found at:
<http://web.uvic.ca/~chem101/LEE/>
2. The midterm test will be on material covered in the half of the course. It will take place on Monday October 24th in F300.
3. The in class quizzes will be on material covered in the previous week(s). 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 6 of the Labs** and score a **minimum of 50%** on the Labs to pass the course **NO EXCEPTIONS**. 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 at least 6 of the 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 Fall 2011 Lab Schedule:**Chem 100 (004) – Mondays, 9:30-11:20 am in Fisher 300**

Week Number	Experiment	Date:
I September 5th	No class - Labour Day	Monday Sept. 5th
II September 12th	Lab Safety: Attendance Mandatory	Monday Sept. 12th
III September 19th	Experiment 1: Density measurements	Monday Sept. 19th
IV September 26th	Experiment 3: Separating mixtures	Monday Sept. 26th
V October 3rd	Experiment 4: Heat of Combustion	Monday October 3rd
VI October 10th	No Class - Thanksgiving	Monday October 10th
VII October 17th	Experiment 5: Recycling Copper	Monday October 17th
VIII October 24th	Midterm Test	Monday October 24th
IX October 31st	Experiment 7: Copper and Silver Nitrate	Monday October 31st
X November 7th	Experiment 9: Chemical Reactivity	Monday November 7th
XI November 14th	To be determined Possibly Expt 10 or review	Monday November 14th
XII November 21st	Experiment 13: Synthesis of Asprin	Monday November 21st
XIII November 28th	Experiment 14: Preparation of some common substances	Monday November 28th
XIV December 5th	No Lab - Review	Monday December 5th

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.