



**School of Arts & Science
CHEMISTRY AND GEOSCIENCE DEPARTMENT**

**CHEM 120-002
College Chemistry 1
Semester/Year, 2009W**

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

Ω Please note: this outline will be electronically stored for five (5) years only.
It is strongly recommended students keep this outline for your records.

1. Instructor Information

(a)	Instructor:	Daniel Donnecke		
(b)	Office Hours:	Mon 10:30 - 11:30 and Wed 10:30 - 11:30 (in F 346C)		
(c)	Location:	F 346C		
(d)	Phone:		Alternative Phone:	
(e)	Email:	donnecked@camosun.bc.ca		
(f)	Website:			

2. Intended Learning Outcomes

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

Upon completion of this course the student will be able to:

1. Utilize nomenclature rules to name ionic and covalent compounds.
2. Demonstrate an understanding of stoichiometry by balancing chemical equations and performing mathematical calculations involving chemical reactions.
3. Describe the electronic structure of any atom in the periodic table and apply it to explain many of the physical and chemical properties of the elements.
4. Utilize simple bonding theories to explain why elements combine to form the compounds they do and also to explain many of the properties of compounds.
5. Apply knowledge of intermolecular interactions to rationalize many important physical properties of bulk matter in the gas, liquid and solid phases.
6. Use standard chemistry lab equipment, including burets, pipets, Buchner filters, and volumetric glassware in the correct manner.
7. Perform many standard laboratory procedures, such as titrations, preparation of standard solutions, the preparation, isolation, and purification of compounds, as well as use spectrophotometers to make analytical measurements.

3. Required Materials

(a) Texts: Principal Text: *CHEMISTRY, The Central Science: A Broad Perspective* by Brown, LeMay, Bursten, Langford, Sagatys and Duffy. Prentice Hall.

(b) Other: Lab Experiments: *Chemistry 120 Laboratory Manual*, Winter 2009 Edition (In-house)

Safety glasses, lab coat, basic calculator

4. Course Content and Schedule

Lectures: Mon (F 334), Wed (F 360) and Fr (F334); 9:30 – 10:20 am

Lab: Tu (F 356); 8:30 – 11:20 am

Laboratory & Exam Schedule

Please familiarize yourself in advance with the safety information presented on pages 1-4 of the Lab Manual.

Tuesday, Jan.6 th	Introduction: Safety in the Chemistry Laboratory
Tuesday, Jan.13 th	The Density of Liquids and Solids
Tuesday, Jan.20 th	Stoichiometry of Chemical Compounds Group A
Tuesday, Jan.27 th	<u>Review Test</u>
Tuesday, Febr.3 rd	Stoichiometry of Chemical Compounds Group B
Tuesday, Febr.10 th	The Spectrophotometric Determination of Nickel in Aqueous Solution
Monday, Febr.16 th	<u>Term Test 1</u>
Febr. 19-20 th	Reading Break- No class on Friday
Tuesday, Febr.17 th	Colorimetric Determination of Iron in a Vitamin Tablet using 1,10-Phenanthroline
Tuesday, Febr.24 th	Determination of Copper using Atomic Absorption Spectroscopy
Tuesday, March 3 rd	<u>Midterm</u>
Tuesday, March 10 th	Determination of the total Hardness of Water using EDTA
Tuesday, March 17 th	The Preparation of Potassium Tris(oxalate)ferrat(III)
Tuesday, March 24 th	Analysis and Uses of Potassium Tris(oxalate)ferrat(III)
Monday, March 30 th	<u>Term Test 2</u>
Tuesday, April 7 th	Review
Friday, April 10 th	Good Friday - college Closed
April 14-22	Final Examination Period

5. Basis of Student Assessment (Weighting)

The course mark will be derived in the following manner:

Review test	12 %
2 Term tests (@8%)	16 %
Midterm	17 %
Final	30 %
Laboratory	25 %

6. Grading System

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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	<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. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
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.

7. Recommended Materials or Services to Assist Students to Succeed Throughout 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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED