



COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/chem.html>

Ω Please note: the College electronically stores this outline for five (5) years only.
It is **strongly recommended** you keep a copy of this outline with your academic records.
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Daniel Dönnecke		
(b)	Office Hours:	Mondays and Wednesdays 10:30-11:20		
(c)	Location:	Ted 232		
(d)	Phone:	370 4447	Alternative Phone:	
(e)	Email:	donnecked@camosun.bc.ca		
(f)	Website:	D2L		

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

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: No textbook is required but it is recommended that you have a first year university chemistry text either used or from the library.
- (b) Other; Safety glasses

4. Course Content and Schedule

Lectures: Monday, Tuesday, Wednesday and Thursday 12:30 – 13:20 (section X01A and X01B) and 11:30 – 12:20 (section X02A and X02B) in **Tec 173**

Laboratory: Monday at 8:30 - 10:20 (section X01A and X01B alternate weeks) and Wednesday 8:30 - 10:20 (section X02A and X02B alternate weeks) in **Tec 230**.

Detailed outline

Week	Activity
1	Matter, atoms, molecules, chemical reactions, mole, stoichiometry Periodic Table, Ionic and covalent bonding Lab safety
2	Polar bonds, molecular shape, polar molecules Lewis structures <i>Lab 1</i> Stoichiometry
3	Term Test 1; Gases, liquids, solids Mixtures, solutions <i>Lab 1</i> Stoichiometry
4	States of matter, Phase changes <i>Lab 2</i> Distillation
5	Thermochemistry, thermodynamics, ΔH , ΔS , ΔG <i>Lab 2</i> Distillation
6	Midterm, Aqueous equilibrium, pH <i>Lab 3</i> Heat of combustion
7	Oxidation/reduction, Electrochemistry Corrosion Reading Break College closed
8	Term Test 2; Organic chemistry, nomenclature <i>Lab 3</i> Heat of combustion
9	Organic chemistry, functional groups Organic chemistry, functional groups, reactions <i>Lab 4</i> Aspirin
10	Term Test 3; Organic reactions; polymers Polymers <i>Lab 4</i> Aspirin
11	Polymers Composites, ceramics Review
	March 21-25: Final Examination Period

5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

Laboratory (4)	12%
Term Tests(3)	18%
Midterm	20%
Final	50%

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College 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	<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 the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED