

# School of Arts & Science CHEMISTRY AND GEOSCIENCE DEPARTMENT CHEM 121

# College Chemistry 2

**Quarter or Semester/Year** 

# **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:	Graham Shorthill		
(b)	Office Hours:	11-30 to 12-00 everyday		
(c)	Location:	F 348A		
(d)	Phone:	250-370-3472	Alternative Phone:	
(e)	Email:	Shorthg@camosun.bc.ca		
(f)	Website:			

## 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:

- Utilize the specialized vocabulary and nomenclature based on the IUPAC system of organic compounds to name and draw structures for many simple organic compounds containing the common functional groups.
- 2. Write chemical reactions to illustrate numerous transformations between organic functional groups.
- Draw structural and stereoisomers of organic compounds and name stereoisomers based upon the IUPAC system of nomenclature.
- 4. Demonstrate an understanding of the factors that influence the rate of a chemical reaction, deduce the rate of a chemical reaction from time/concentration data, and utilize rate laws to perform kinetic calculations.
- Apply the laws of thermodynamics and account for the factors that lead to spontaneous physical and chemical changes.
- Explain how and why reactions attain equilibrium positions and perform calculations pertaining to equilibrium systems.
- 7. Describe redox reactions, use electrochemical data to predict the spontaneity of redox reactions, and comprehend the structures of electrochemical cells.
- 8. Describe various acid-base theories and apply these theories to acid-base reactions in aqueous solution.
- 9. Perform experiments in the areas of preparative organic, preparative inorganic, physical and analytical chemistry and use the various associated pieces of laboratory equipment.

#### 3. Required Materials

(a) Texts Brown and Lemay: Special edition for Camosun College

(b) Other Camosun College Laboratory Manual for Chem 121

Duotang binder for lab reports

Safety glasses

#### 4. Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

There are six hours a week of in class lectures and the same for the laborto

## 5. Basis of Student Assessment (Weighting)

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

(a) Assignments

(b)	Quizzes	Quiz 1 Quiz 2	Chapters 21, 22, and 23 Chapters 12,13,14, and 15		20% 20%
(c)	Exams	Final	Comprehensive final (all the above	plus Chapters 4, 17,and 18)	35%
(d)	Other (e.g.,	Attendan	ce, Project, Group Work)	Laboratories	25%

## 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	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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 3 <sup>rd</sup> 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.	

# 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 <a href="mailto:camosun.ca">camosun.ca</a>.

#### 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