

# Chemistry 1094, Spring 2010

## Instructor Information

**Instructor:** Dr. Patrick Duffy  
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**Office Hours:** TBA

## General Course Information

**Credits:** 4

**Prerequisites:** Mathematics 10 (with a C or better)

**Corequisites:** MATQ 1093 or MATH 1093 or MATH 1117 or MATQ 1099 or ABEM 0011 or MATP 1011 or Principles of Mathematics 11 (with a C or better)

**Instruction Format:** Two lectures per week (two hours each) and one lab per week (two hours).

**Required Material:** Basic Chemistry, 6<sup>th</sup> Ed. (Zumdahl/Decoste) – textbook  
Chemistry 1094 Laboratory Manual and one laboratory notebook  
Contact lenses may not be worn in the laboratory. Glasses are therefore required for people who normally wear contact lenses.  
Calculator: One of either the Sharp EL-531W or the Aurex SC-6136

**Optional:** Student Study Guide and Solutions Manual for Zumdahl/Decoste

## Evaluation

Lecture		Laboratory	
Three Exams	40	Lab Reports	20
Final Exam	30	Lab Exam	10

Any in-class exam not written by the student will be assigned a grade of zero unless the student can produce a medical note or other relevant documentation supporting the necessity of their absence. **Doctors' notes must indicate that the student was too sick to write the exam.** If such documentation is produced, the weights of the other exams will be increased so that the student will not be penalized for missing the exam. If the student is unable to write an exam, he or she must notify the instructor *before the scheduled exam time*. Labs missed without a valid excuse will result in an incomplete grade being assigned to the laboratory portion of the course. **More than three labs missed for any reason will result in an incomplete grade being assigned to the laboratory portion of the course.**

### Important Dates

<b>January 10 (Sunday)</b>	Last day to add a course or to drop a course without a “W” appearing on your transcript
<b>January 28 (Thursday)</b>	Exam #1
<b>March 11 (Thursday)</b>	Exam #2
<b>March 13 (Saturday)</b>	Last day to drop a course (“W” will appear on your transcript)
<b>April 1 (Thursday)</b>	Exam #3
<b>April 15 (Thursday)</b>	Last class
<b>April 26 (Monday)</b>	Final exam (11:30 – 2:30, room 3465)

### Grade Guidelines

What follows are the guidelines used to determine your final grade in Chemistry 0094. Please note the restrictions placed on your grade by both the lab component of the course and your performance on the final exam.

<b>To get a(n):</b>	<b>Your total mark (including final and lab) must be:</b>	<b>Within that, your final exam mark must be at least:</b>	<b>And in the Lab:</b>
A+	90 – 100%	80%	All work must be complete, and you must have an overall lab mark of at least 65%
A	85 – 89%	70%	
A-	80 – 84%	65%	
B+	76 – 79%	60%	All work must be complete, and you must have an overall lab mark of at least 60%
B	72 – 75%	60%	
B-	68 – 71%	55%	
C+	64 – 67%	50%	All work must be complete, and you must have an overall lab mark of at least 50%
C	60 – 63%	40%	
C-	56 – 59%	40%	
D	50 – 55%	N/A	N/A
F	<50%	N/A	N/A

## Tentative Schedule and Outline of Course Topics

<b>Chapter 1: Problems:</b>	<b>Introduction:</b> Introduction to Chemistry, the scientific method 10, 11
<b>Chapter 2: Problems:</b>	<b>Measurement and Calculations:</b> Scientific notation, metric system, significant figures, problem solving and dimensional analysis, temperature, density Even-numbered problems: 4 – 14, 18, 22 – 46, 50 – 82, 86 – 158
<b>Chapter 3: Problems:</b>	<b>Matter:</b> Matter, physical and chemical properties and changes, elements and compounds, mixtures and pure substances, separation of mixtures Even-numbered problems: 4, 6, 12 – 22, 26 – 60
<b>Chapter 4 Problems:</b>	<b>Elements, Atoms, and Ions:</b> Atomic theory, atomic structure, isotopes, atomic weight, periodic table, ions Even-numbered problems: 8 – 20, 24 – 28, 32 – 70, 74 – 108
<b>Chapter 5 Problems:</b>	<b>Nomenclature:</b> Molecular and ionic compounds, naming compounds Even-numbered problems: all
<b>Chapters 6, 7 Problems:</b>	<b>Chemical Reactions:</b> Evidence for a chemical reaction, chemical equations, balancing chemical equations, types of reactions Even-numbered problems: all (chapter 6), and 4 – 50, 54 – 94 (chapter 7)
<b>Chapter 8: Problems:</b>	<b>Chemical Composition:</b> The mole, molar mass, Avogadro's number, mass-mole calculations, percentage composition, molecular weight, empirical and molecular formulae Even-numbered problems: 2 – 52, 56 – 126
<b>Chapter 9: Problems:</b>	<b>Chemical Quantities:</b> Calculations based on chemical equations, limiting reagent, percent yield Even-numbered problems: all
<b>Chapter 15 (omit 15.1 and 15.8): Problems:</b>	<b>Solutions:</b> Components of a solution, concentration units, solution stoichiometry Even-numbered problems: 10 – 72, 90 – 96, 100 - 128
<b>Chapter 10.1 – 10.5: Problems:</b>	<b>Energy:</b> The nature of energy, temperature and heat, exothermic and endothermic processes, thermodynamics, measuring energy changes Even-numbered problems: 8 – 14, 18, 22 – 38

# PLAGIARISM AND CHEATING POLICY

## Introduction

### 1. DEFINITIONS

Cheating, which includes plagiarism, occurs when a student or group of students uses or attempts to use unauthorized aids, assistance, materials or methods. Cheating is a serious educational offense.

Plagiarism occurs when a student represents the work of another person as his or her own.

## Policy

Kwantlen University College condemns all forms of cheating.

If it is determined that a student has cheated, the University College will proceed with discipline in the following manner:

1. for most first offences, a grade of zero will be awarded for the affected assignment, test, paper, analysis, etc.;
2. for most second offenses, a failing grade will be assigned in the affected course;
3. depending upon the circumstances surrounding a first or second offense, a more severe level of discipline may be imposed by the University College;
4. Where deemed appropriate in the circumstances, for any third offence, the matter *must* be referred to the University College President under Policy No. C21 Student Conduct for the assignment of discipline, which may include suspension or expulsion from the University College.

This policy must be communicated in all course presentations.

## Procedural Guidelines

1. When an invigilator, instructor, or Dean's designate, after obtaining the student's explanation, determines that a student has cheated, he or she will immediately gather the available evidence, assign a grade of zero to the affected assignment, test, paper, etc., and report the incident, with documentation, to the Dean under whose jurisdiction the course falls.
2. The Dean will assign any additional disciplinary action which may be in order under the policy described above, and will inform the Registrar.
3. The Registrar will maintain a record of each offense in the student's file.
4. The affected student has the right at any time to consult with a University College counsellor and/or the student ombudsperson.
5. Except in circumstances where the matter has been referred to the President under Policy No. C.21 Student Conduct, a student may appeal a decision or penalty under this policy to the Kwantlen University College Appeals Committee (C.5 Appeals of Academic or Admissions Decisions).