

**CHEM\*1050 General Chemistry II F,W (3-3) [0.50]**

This course provides an introductory study of the fundamental principles governing chemical transformations: thermodynamics (energy, enthalpy, and entropy); kinetics (the study of rates of reactions); and redox/electrochemistry.

*Prerequisite(s): CHEM\*1040*

- Lecturer for this course is Prof. Monteiro (monteiro@uoguelph.ca); you can contact me by telephone at extension 53447 or visit me in room 230, 333 or 346 MacNaughton.
- In this course we will discuss material encompassing the fields of thermochemistry, thermodynamics, Bond Enthalpies, Energetics of ionic compounds, Electrochemistry, Reaction Rates, and Radioactive decay.
- The book that will be used for homework assignments is the 10<sup>th</sup> edition of Ebbing and Gammon, Houghton Mifflin Co. Homework assignments will be given out in class throughout the semester.
- Your grade will be calculated as follows:
 

(Three) 3 In-class Exams	45%	
Wet Labs	15%	
Online Dry Labs	5%	<a href="https://courselink.uoguelph.ca/">https://courselink.uoguelph.ca/</a>
Final Examination	35%	
- Use the Discussion Board in course-link to post questions about the dry labs.
- Dates and locations of midterm exams will be announced in class. Final exam information will take place on Tues., [Dec 3](#), 8:30 - 10:30 AM. Final exam is cumulative.
- No make-up in-class exams will be given. If you miss any exam, a grade of zero will be assigned. You must bring proper documentation to Prof. Monteiro directly within 2 classes of missed examination. If your absence is justified – the percent value of the in-class exam will be added to the final examination.
- In the case of a missed final examination you should consult the Undergraduate Calendar for the appropriate course of action.
- Exams will be closed book. No written or printed materials of any kind are permitted. Electronic calculators may be used on all quizzes and examinations.
- Wet Lab Exemptions:** Laboratory Exemptions for students who are repeating CHEM\*1050  
DEADLINE: TUESDAY, [SEPTEMBER 10](#). Students who obtained a “wet” lab grade of at least 60%, but who failed the course as a whole, may apply for a lab exemption. The lab work must have been completed during one of the three preceding semesters in which the course was offered (i.e., W’12, F’12 or W’13). Apply online at [www.chemistry.uoguelph.ca/labexemption](http://www.chemistry.uoguelph.ca/labexemption). NOTE: Students repeating CHEM\*1050 who are granted a “wet” lab exemption must still complete the online “dry” computer labs.
- The exams** may consist of only one of the following form of questions or a combination of the different forms: multiple choice; fill-in-the-blanks; short answer questions; long-answer questions.
- **Laboratory Manual** for CHEM\* 1050 and **safety goggles** (not safety glasses) - Purchased in the Department of Chemistry, SCIE 2101. A **lab coat** is also required. Electronic calculator with ln, exp or e<sup>x</sup>,

$\log_{10}$  and  $10^x$  functions. Calculators or notebook computers capable of storing text information are not allowed in the examinations.

● **Office Hours:** Monday, Wednesday and Friday, 11 AM to 12 noon, room 333 MacNaughton Building.

● **First laboratory:** You must attend your first lab in order to receive mandatory safety training and all the required information from your TA. If you do not attend the lab in week 1, you may lose your place. As proof that you are registered in the lab, you must bring a computer print-out (dated Sept. 1 or later) of "My Class Schedule" from WebAdvisor to your first lab. Pre-lab quizzes written in the lab.

### LABORATORY SCHEDULE

DATE	Group A Students (ODD lab section numbers)	Group B Students (EVEN lab section numbers)
Week 1 Sept. 9 – 13	<b>Arrive at regular starting time.</b> Check-in & safety training. Bring printout of "My Class Schedule & your lab manual. Safety training is mandatory and a legal requirement.	<b>Arrive 90 min after regular starting time.</b> Check-in & safety training. Bring printout of "My Class Schedule & lab manual. Safety training is mandatory and a legal requirement.
Week 2 Sept. 16 – 20	<b>Arrive at regular starting time.</b> <u>Experiment 1:</u> Enthalpy of Formation Quiz on WHMIS & Exp't 1	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab A: Bomb Calorimeter</i>
Week 3 Sept. 23 – 27	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab A: Bomb Calorimeter</i>	<b>Arrive at regular starting time.</b> <u>Experiment 1:</u> Enthalpy of Formation Quiz on WHMIS & Exp't 1
<i>Dry Lab A: Bomb Calorimeter Marking Module Deadline: Sunday, September 29, 11:59 PM</i>		
Week 4 Sept. 30 – Oct. 4	<b>Arrive at regular starting time.</b> <u>Experiment 2:</u> Equilibrium Constant Quiz on Experiment 2	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab B: <math>\Delta G^\circ</math>, <math>\Delta H^\circ</math> and <math>\Delta S^\circ</math></i>
Week 5 Oct. 7 – 11	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab B: <math>\Delta G^\circ</math>, <math>\Delta H^\circ</math> and <math>\Delta S^\circ</math></i>	<b>Arrive at regular starting time.</b> <u>Experiment 2:</u> Equilibrium Constant Quiz on Experiment 2
<i>Dry Lab B: <math>\Delta G^\circ</math>, <math>\Delta H^\circ</math> and <math>\Delta S^\circ</math> Marking Module Deadline: Sunday, October 13, 11:59 PM</i>		
Week 6 Oct. 15 – 18 (No classes Oct. 14)	No Lab. Independent Study.	No Lab. Independent Study.
Week 7 Oct. 21 – 25	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab C: Electrolysis</i>	<b>Arrive at regular starting time.</b> <u>Experiment 3:</u> Voltaic Cells Quiz on Experiment 3
Week 8 Oct. 28 – Nov. 1	<b>Arrive at regular starting time.</b> <u>Experiment 3:</u> Voltaic Cells Quiz on Experiment 3	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab C: Electrolysis</i>
Documentation due to TA by this week for any Expt. 1 & 2 lab absences.		
<i>Dry Lab C: Electrolysis Marking Module Deadline: Sunday, November 3, 11:59 PM</i>		
Week 9 Nov. 4 – 8	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab D: Catalytic Hydrolysis of Salicin</i>	<b>Arrive at regular starting time.</b> <u>Experiment 4:</u> Chemical Kinetics Report due in three days.
Week 10 Nov. 11 – 15	<b>Arrive at regular starting time.</b> <u>Experiment 4:</u> Chemical Kinetics Report due in three days.	<b>Do not go to lab room this week.</b> <i>Online Computer Lab:</i> <i>Dry Lab D: Catalytic Hydrolysis of Salicin</i>
<i>Dry Lab D: Catalytic Hydrolysis of Salicin Marking Module Deadline: Sunday, November 17, 11:59 PM</i>		
Week 11 Nov. 18 – 22	<b>Arrive at regular starting time.</b> Clean-up and check out.	<b>Arrive 90 min after regular starting time.</b> Clean-up and check out.
Documentation due to TA this week for any lab absences, else a grade of zero is assigned.		

### E-mail Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

### When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic Consideration:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

### Drop Date

The last date to drop one-semester courses, without academic penalty, is October 31st. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

### Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

### Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website: <http://www.csd.uoguelph.ca/csd/>

### Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

### Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

### Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs:

<http://www.uoguelph.ca/registrar/calendars/index.cfm?index>