

### 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:** Professor Monteiro (monteiro@uoguelph.ca; extension 53447; rooms 230, 333 or 346 MacNaughton; www.uoguelph.ca/~monteiro/).
- **Textbook:** D. Ebbing & S. Gammon, General Chemistry 10<sup>th</sup> ed., Brooks/Cole, Cengage Learning. Homework assignments, based on textbook questions, will be assigned in class.
- Course material encompasses the fields of thermochemistry, thermodynamics, bond enthalpies, energetics of ionic compounds, electrochemistry, reaction rates, and radioactive decay.
- Your final grade will be calculated as follows:

Three (3) In-class Exams	35%
Wet Labs	15%
Online Dry Labs	5%
Final Examination	45%

**In-class Exams:** 1) Wed., October 7, 2) Wed., November 4<sup>th</sup> and 3) Wed., November 25<sup>th</sup>

**Final Exam:** Tuesday, December 15, 11:30 AM – 1:30 PM. **Final exam is cumulative.**

- Exams may consist of only one or a combination of the following question type: multiple choice; fill-in-the-blanks; short answer questions; long-answer questions. Exams will be closed book. No written or printed materials of any kind are permitted. Electronic calculators may be used during examinations when allowed.
- 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 exam. If your absence is justified, the percent value of the in-class exam will be added to the final exam.
- In the case of a missed final examination, contact your Program Counsellor as soon as possible (see [www.uoguelph.ca/uaic/programcounsellors](http://www.uoguelph.ca/uaic/programcounsellors)). Official documentation is required within 5 working days of the missed final examination.
- **Laboratory Manual** for CHEM\* 1050 and **safety goggles** (not safety glasses) - purchased from the Department of Chemistry, SCIE 2101. A **lab coat** is also required. Electronic calculator with ln, exp or e<sup>x</sup>, log<sub>10</sub> and 10<sup>x</sup> functions. Calculators or notebook computers capable of storing text information are not allowed in the examinations.
- **Office Hours:** Monday, Wednesday & Friday, 11 AM to 12 noon, room 333 MacNaughton Building.
- **First laboratory:** You must attend your first lab to receive mandatory safety training and required information from your TA. 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.
- **Wet Lab Exemptions:** Students who obtained a “wet” lab grade of at least 60%, but who failed the course as a whole, may apply for a “wet” lab exemption. The lab work must have been completed in the following semesters: W’14, F’14 or W’15. Deadline: Tuesday, September 15. Apply online at [www.chemistry.uoguelph.ca/labexemption](http://www.chemistry.uoguelph.ca/labexemption). NOTE: Those who receive a “wet” lab exemption must still complete the online “dry” computer labs.

## FALL 2015 CHEM\*1050 LABORATORY SCHEDULE

DATE	WEEK A Schedule (ODD lab section numbers)	Activity	WEEK B Schedule (EVEN lab section numbers)	Activity
Week 1 Sept. 14 – 18	Arrive for regular starting time. Sign-in & safety training. Safety training is mandatory and a legal requirement.	Bring Class Schedule & Lab Manual	Arrive 90 min after regular starting time (i.e., for 10AM, 4PM or 8:30PM). Sign-in & safety training. Safety training is mandatory and a legal requirement.	Bring Class Schedule & Lab Manual
Week 2 Sept. 21 – 25	Arrive for regular starting time. <u>Experiment 1</u> : Enthalpy of Formation	Pre-lab Quiz on WHMIS & Exp't 1	Do not go to lab room this week. <i>Online Computer Lab:</i> <i>Dry Lab A: Bomb Calorimeter</i>	<i>Dry Lab A Marking Module</i>
Week 3 Sept. 28 – Oct. 2	Do not go to lab room this week. <i>Online Computer Lab:</i> <i>Dry Lab A: Bomb Calorimeter</i>	<i>Dry Lab A Marking Module</i>	Arrive at regular starting time. <u>Experiment 1</u> : Enthalpy of Formation	Pre-lab Quiz on WHMIS & Exp't 1
Dry Lab A Marking Module		DEADLINE:	Sunday, October 4, 11:55 PM	
Week 4 Oct. 5 – 9	Arrive at regular starting time. <u>Experiment 2</u> : Equilibrium Constant	Pre-lab Quiz on Exp't 2	Do not go to lab room this week. <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>	<i>Dry Lab B Marking Module</i>
Week 5 Oct. 14 – 16 (No classes Oct. 12 & 13)	No Lab. Independent Study.	No pre-lab quiz	No Lab. Independent Study.	No pre-lab quiz
Week 6 Oct. 19 – 23	Do not go to lab room this week. <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>	<i>Dry Lab B Marking Module</i>	Arrive at regular starting time. <u>Experiment 2</u> : Equilibrium Constant	Pre-lab Quiz on Exp't 2
Dry Lab B Marking Module		DEADLINE:	Sunday, October 25, 11:55 PM	
Week 7 Oct. 26 – 30	Do not go to lab room this week. <i>Online Computer Lab:</i> <i>Dry Lab C: Electrolysis</i>	<i>Dry Lab C Marking Module</i>	Arrive at regular starting time. <u>Experiment 3</u> : Voltaic Cells Quiz on Experiment 3	Pre-lab Quiz on Exp't 3
Week 8 Nov. 2 – 6	Arrive at regular starting time. <u>Experiment 3</u> : Voltaic Cells Quiz on Experiment 3	Pre-lab Quiz on Exp't 3	Do not go to lab room this week. <i>Online Computer Lab:</i> <i>Dry Lab C: Electrolysis</i>	<i>Dry Lab C Marking Module</i>
For any valid Expt. 1 & 2 lab absence(s), submit documentation through the General Lab Marker system before the end of this week.				
Dry Lab C Marking Module		DEADLINE	Sunday, November 8, 11:55 PM	
Week 9 Nov. 9 – 13	Do not go to lab room this week. <i>Online Dry Lab D:</i> <i>Catalytic Hydrolysis of Salicin</i>	<i>Dry Lab D Marking Module</i>	Arrive at regular starting time. <u>Experiment 4</u> : Chemical Kinetics Report due in three days.	Pre-lab Quiz on Exp't 4
Week 10 Nov. 16 – 20	Arrive at regular starting time. <u>Experiment 4</u> : Chemical Kinetics Report due in three days.	Pre-lab Quiz on Exp't 4	Do not go to lab room this week. <i>Online Dry Lab D:</i> <i>Catalytic Hydrolysis of Salicin</i>	<i>Dry Lab D Marking Module</i>
Week 11 Nov. 23 – 27	Arrive at regular starting time. Clean-up and check out.		Arrive 90 min after regular starting time. Clean-up and check out.	
Dry Lab D: Catalytic Hydrolysis of Salicin		DEADLINE	Sunday, November 29, 11:55 PM	
Any remaining lab excuses are due by <b>Friday Dec. 4</b> through the General Lab Marker system else a grade of zero is assigned.				

- **Pre-lab Quizzes** are based on the “wet” lab activities to be performed – see schedule above. To access, go to “Content - Pre-Lab Quizzes”. These quizzes open the Thursday before your particular “wet” lab week and closes 60 minutes prior to the start of your lab period. You have 2 attempts at each quiz. If you do not attempt a quiz, a grade of zero is assigned.
- **Laboratory Reports** are submitted through Chemistry’s online General Lab Marker System. During your lab period, collect your data and submit a copy to your TA before leaving the lab. You then submit your lab report online for grading. Lab reports are normally due one week after your lab period and by 11:55 PM. Marks are deducted for lateness. The link to the site is provided on CourseLink, under “Content - Course Resources”.
- **Missed Laboratory:** Refer to the “Purple Page for Lab Absences in First-Year Chemistry” posted on the course site, under “Content - Course Resources”.

**E-mail Communication:** As per university regulations, all students are required to check their <mail.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. For information on regulations and procedures for Academic Consideration, see <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 Friday, November 6. For regulations and procedures for Dropping Courses, refer to 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 Student Accessibility Services (formerly Centre for Students with Disabilities) as soon as possible. For more information, contact 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca).

**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.

**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 Undergraduate Calendar ([www.uoguelph.ca/registrar/calendars/index.cfm?index](http://www.uoguelph.ca/registrar/calendars/index.cfm?index)) is a source of information about the University of Guelph's procedures, policies and regulations.