

Introductory Chemistry I (CHMA10H) Fall 2012 Syllabus (Tentative) University of Toronto at Scarborough



Welcome to CHMA10! This course will provide an introduction to the study of chemical properties and transformations of matter from both a macroscopic and microscopic perspective. To be enrolled in this course you must have previously completed senior-level chemistry in high school (SCH4U or its equivalent) or have permission of the course instructor.

Please take a few minutes to read through this document. It contains important information which will help you to succeed in this course.

Staff:

Instructors:

Professor Heinz-Bernhard Kraatz: SW632, Email: bernie.kraatz@utoronto.ca

– Office Hours, September 10th – October 22nd, Mon and Wed 4:00-5:30 pm in SW632 Professor Xiao-an Zhang: SW511, Email: xazhang@utsc.utoronto.ca

- Office Hours, October 24th - December 3rd, Mon and Wed 4:00-5:30 pm in SW511

Lab Manager:

Dr. Scott Ballantyne: Room Number SW155C, Email: sballant@utsc.utoronto.ca

– Office Hours: Mon. and Wed. 10:30 – 12:00 pm

Email Policy:

Please use a valid "utoronto.ca" or "utsc.utoronto.ca" account for all CHMA10 correspondence. Emails sent from other accounts are frequently filtered out as spam and may not be received. When composing your email, please use professional language. Be sure to include the course code as part of the subject line and sign the email with your first and last name, as well as your student ID. Your email will be answered as soon as possible (likely within 36 hours, unless it is a weekend or holiday).

A note on email content: Please double check this syllabus before emailing us with a question. Questions on the lab material should be directed to the lab coordinator or your TA.

Text:

Chemistry: A Molecular Approach, 2nd Ed., by Nivaldo Tro.

There are two different purchasing options from the UTSC bookstore:

OPTION 1

Package including (1) Hardcopy of the textbook; (2) MasteringChemistryPlus access code; (3) E-book access code; (4) Students selected solutions manual

OPTION 2

Stand-alone MasteringChemistryPlus access code

Online Homework:

There will be weekly homework assignments to be completed using the online homework system MasteringChemistryPlus. If you purchase the bundled textbook package at the UTSC bookstore, your MasteringChemistryPlus registration code will be included. If you acquire a copy of the text from another source, you will need to purchase MasteringChemistryPlus code separately from the UTSC Bookstore.

Assignments will be released every Wednesday at 5:00 pm and will be due the following Wednesday at 9:00 am. *Late assignments will not be graded*. The assignments, together with the tutorial quizzes, will be equally weighted and together count for 5% of your final grade.

Your can activate your MasteringChemistryPlus account on MyLabPlus website (http://utoronto.mylabsplus.com). Please carefully follow the MyLabPlus Instructions (Appendix 1) attached at the end of the syllabus for MasteringChemistryPlus registration and login.

<u>Caution</u>: If you use Mac computer with a Safari browser 5.1.4 (and above), you may experience an authentication error message, caused by the default browser settings. To address this issue, please follow the instruction attached at the end (*Appendix 2*).

Website:

CHMA10 maintains the Blackboard web space which archives a variety of course-related information. There are two instructors for the course and at the beginning of each of their sections, they will inform you where you will find: contact information, class announcements, lecture slides, handouts, assigned readings, suggested end-of-chapter problems, and links to some useful outside resources.

Accessing WebOption Lecture Videos

WebOption lecture videos can be accessed at the Blackboard via the "Lecturecasts" link.

Term Test – 25% of final grade:

There will be a 100-minute term test around the middle to end of October which will count as 25% of your final grade. This test will be written outside of class time. The exact date, time and location will be announced as soon as this information is made available from the registrar.

Policy on Missed Tests:

This course will not have any make-up tests. Should you miss the term test due to a legitimate reason, you must submit appropriate documentation within one week of your absence. If the reason is medical, an official UTSC medical form should be downloaded from http://www.utsc.utoronto.ca/~registrar/resources/pdf general/UTSCmedicalcertificate.pdf and completed by your doctor. If no acceptable documentation is received, you will receive a grade of zero for that test.

With a validated absence, the value of the missed test will be added to your final exam. Please note that on page 329 of the 2012/2013 UTSC Calendar it states: "You cannot petition to withdraw from a course on the grounds that no work was returned to you before the last day to withdraw without academic penalty if this is the result of your having been given an extension to complete your work for reasons relating to you and not the rest of your class."

Final Examination – 45% of final grade:

There will be a 3-hour, *cumulative* exam written during the end of semester exam period. The exact date, time and location will be announced as soon as they are available. *Please note that if you miss the Final Exam, you must petition the Registrar's Office to write a make-up exam in the next formal exam period.* Check the UTSC Calendar for instructions and deadlines.

Labs:

The laboratory component of CHMA10 is compulsory. In order to pass the course, you must also pass the lab component.

Lab Schedule:

Week 1 lab students:

Students assigned to practical sections ending in odd numbers, P0001, P0003, P0005 etc. begin their labs during the week of September 17th, 2012

Week 2 lab students:

Students assigned to practical sections ending in even numbers, P0002, P0004, P0006 etc. begin their labs during the week of September 24th, 2012

Lab Manual and Notebook:

A lab manual must be purchased from the UTSC Bookstore before your first lab. You may **NOT** use a lab manual from a previous semester: the experiments and course requirements will be different. Students will be required to purchase their own lab notebook. The book must be hard-cover, permanently bound (not spiral or loose leaf) with the approximate dimensions 8.25" x 10.5" inches. They can be purchased at the UTSC bookstore; however students are free to purchase their books at a merchant of their choice (so long as they meet the above requirements)

DO NOT wait to purchase your lab manual as it contains a host of important information:

- Lab Schedules and other important dates
- Late and absence policies
- Rules regarding safety
- Appropriate attire for the labs
- Marking schemes
- Guidelines on how to properly prepare for the lab

The bookstore **DOES NOT** stock enough lab manuals for everyone. If they run out, you **MUST** preorder a copy through the bookstore – this takes time. Failure to adhere to the rules and policies outlined within the lab manual will adversely affect your lab mark – in some instances the impact will be severe.

Lab Safety:

Safety in the laboratory is an extremely important element in the chemistry program at this University. Failure to follow safe practices can cause laboratory accidents which may result in the loss of time, damage to clothing, and other property, and most importantly personal injury. By following suitable precautions, you can anticipate and prevent situations that would otherwise lead to accidents.

You will be required to enroll in the UTSC WHMIS (Scarborough Campus) online course (EHS105) accessible through the Portal website using your UTORid. Instructions on how to

access the course will be posted on the CHMA10 blackboard site. You will be expected to watch the video (approximately 30 minutes long) and take a multiple choice quiz on the material you just learned. You must obtain 80% on the quiz to pass the WHMIS course. You will be required to print off your quiz results and present them to your TA before you will be allowed to enter the lab.

Safety Equipment:

Students will be required to purchase safety goggles (mandatory), safety glasses (optional) and a lab coat (mandatory) before attending their first lab. This year, only specific eyewear models will approved for student use:

Safety Goggles - Uvex Stealth OTG model# S3970DF

Safety Glasses - Nemesis models V30 and V30 VL

Safety Glasses (over prescription evewear) – Nemesis model V50

Labs coats must not contain more than 65% polyester material.

These items can be purchased from both the Environmental and Physical Sciences Student Association (EPSA) and the Biology Student Association (BioSA).

Further information regarding appropriate attire please see the guidelines outlined in your lab manual.

Ancillary fees:

The Department of Physical and Environmental Sciences at UTSC provides state-of-the-art education in chemistry. Chemistry being an experimental science makes learning in a laboratory setting critical. In order to provide the latest technology to enhance the student learning experience, UTSC will be charging ancillary fees for all chemistry courses that have a laboratory component. Those fees are used to recover the cost of materials and services used during the lab and to maintain and upgrade the equipment used by students. To view a complete list of those fees, students are encouraged to visit the following link:

http://www.planningandbudget.utoronto.ca/Assets/Academic+Operations+Digital+Assets/Planning+\$!26+Budget/2012-13+Category+5+Ancillary+Fees.pdf

Tutorials:

Tutorials are compulsory and are scheduled within the same time slot as your CHMA10H laboratory but in the alternate week of your assigned laboratory. The duration of the tutorial is one hour. The room assignments for the tutorials **ARE NOT THE SAME** as your labs. Your Tutorial number (TUTXXXX) is the same as your Practical number (PRAXXXX). Please check the CHMA10H web site for a link to the timetable where you can view the times and room assignments of your tutorials.

Week 1 lab students

Students assigned to tutorial sections ending in **odd numbers**, **TUT0001**, **TUT0003**, **TUT0005** etc. begin their tutorials during the week of **September 24**th, **2012**

Week 2 lab students

Students assigned to tutorial sections ending in even numbers, TUT0002, TUT0004, TUT0006 etc. begin their tutorials during the week of September 17th, 2012

Additional Resources:

The Chemistry Aid Centre is a student-run, drop-in help centre where students from introductory general chemistry and organic chemistry courses can go for help with lecture and lab material. The centre is staffed with volunteer tutors, all of whom have done well in the course previously and have been trained on how to effectively help others. Students looking for help with the course can visit the centre in P0104, room 107 starting in the second week of classes. Please visit Chemistry Aid Centre website the at http://www.utsc.utoronto.ca/~chemaid/ for up to date scheduling information and tutor profiles. In addition, a Facilitated Study Group (FSG) program organized by the Centre for Teaching and Learning is also available to support this course. The FSG program is designed to enhance the student experience, reduce attrition, and help students succeed in historically difficult Detailed information about courses. FSG is available (http://ctl.utsc.utoronto.ca/home/fsg). Please note that tutors in CAC and FSG will NOT give out answers to any graded homework or lab assignments.

Calculators:

Only non-programmable, non-communicating calculators are allowed in tests and exams for this course (both lecture and lab). The following specific models available at UTSC book store are recommended for both CHMA10 and CHMA11:

Texas Instruments:	TI-30X IIS (SKU# 10048306)	
Sharp:	EL-520WB (SKU# 10048016), EL-531WB (SKU#	
	10047965), EL-546WB (SKU# 10047880)	
Casio:	FX-260 (SKU# 10009994)	

Invigilators have the authority to check calculators during the tests and exams. Students who have illegal calculators confiscated during a test/exam will be supplied with an allowed calculator but an immediate penalty of 10% will be imposed for that test/exam. Students without a calculator will also be allowed to borrow an allowed model, but at the cost 10% off their mark on that test/exam.

Method of Evaluation:

Below is the grading scheme that will be used in this course.

Graded Work	%
Online Homework/Tutorial Quiz	5%
Term Test (NO MAKE-UP)*	25%
Final Exam	45%
Laboratory	25%

^{*}If you miss a test, its value will be added to that of the final.

Note: To pass the course, you MUST pass the laboratory and either the term test or the final exam (and receive a final grade of 50+, of course!).

Online Grades:

Individual grades will be posted on the Blackboard as they become available. Please check these periodically to make sure that the posted grades match your own records. Any discrepancy should be reported immediately to the instructor or the lab coordinator, as appropriate.

Lecture Topics:

Below is a brief list of topics that will be covered in this course, along with the corresponding chapters. A more detailed list, with the associated textbook readings and assigned end-of-chapter problems, can be found on Blackboard under the "readings/problems" tab.

Professor Kraatz

- Review of Chemistry Fundamentals (Chapters 1-4)
- Gases (Chapter 5)
- Thermochemistry (Chapter 6)
- Atomic Structure (Chapter 7)
- Periodic Table and Properties of the Elements (Chapter 8)

Professor Zhang

- Chemical Bonding (Chapters 9-10)
- Nuclear Chemistry (Parts of Chapter 19)
- Parts of Chapters 22-24 (If time permits, optional)

Accessibility:

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach us and/or the AccessAbility Services Office as soon as possible. We will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Academic Integrity:

Academic integrity is one of the cornerstones of the University of Toronto. It is critically important both to maintain our community which honours the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. Detailed information about how to act with academic integrity, the Code of Behaviour on Academic Matters, and the processes by which allegations of academic misconduct are resolved can be found online: http://www.artsci.utoronto.ca/osai/students

According to Section B of the University of Toronto's Code of Behaviour on Academic Matters

http://www.governingcouncil.utoronto.ca/policies/behaveac.htm which all students are expected to know and respect, it is an offence for students to:

- To use someone else's ideas or words in their own work without acknowledging that those ideas/words are not their own with a citation and quotation marks, i.e. to commit plagiarism.
- To include false, misleading or concocted citations in their work.
- To obtain unauthorized assistance on any assignment.
- To provide unauthorized assistance to another student. This includes showing another student completed work.
- To submit their own work for credit in more than one course without the permission of the instructor.
- To falsify or alter any documentation required by the University. This includes, but is not limited to, doctor's notes.
- To use or possess an unauthorized aid in any test or exam.

There are other offences covered under the Code, but these are by far the most common. Please respect these rules and the values which they protect. Offences against academic integrity will be dealt with according to the procedures outlined in the Code of Behaviour on Academic Matters.

Appendix 1:

MyLabsPlus Instructions for Registration and Login

Before you go online to register be sure you have:

- MyLabsPlus Web address: http://utoronto.mylabsplus.com
- Login Name: provided by email from University of Toronto
- Password: provided by email from University of Toronto (Change your password!!!! See below.)
- A student access code for MasteringChemistryPlus, which should have come packaged with your textbook or may be purchased separately.

Sample: MMLST-TAROK-THOLE-PICON-SHRIK-PRAWN

Log into MyLabsPlus and Open Your Course:

- 1. Launch your Web browser.
- 2. Go to the MyLabsPlus Web address: http://utoronto.mylabsplus.com
- 3. Enter your Username and Password.
- 4. Click the **Login** button.

Change your password!!!!!

- 1. Click on 'My Profile' at the top right of the screen.
- 2. Optional step: If you wish to receive confirmation emails then you can enter your email address.
- 3. Fill in the appropriate boxes with your old password and your new password. Click 'Update with new values.'

Register Your Student Access Code in a Course for the First Time.

- 1. Click on the name of your course you wish to register in.
 - a. If your course name does not appear, contact your instructor.
- 2. Click **Assignments** under Course Home on the navigation tree.

You will be asked to accept the License Agreement and provide your Student Access Code when you first click a link on one of the following pages in your the MyLabsPlus course:

Assignments, Scores, eText, Study Area or an individual chapter.

- 4. Please read all information on the License Agreement and Privacy Policy page. Click on **I Accept** if you agree to the terms of use.
- 5. Select the Access Code option, enter your Access Code in the Enter Your Access Code text entry box, and click **Next**.

6. Click Next.

If you do not have a Student Access Code, you can select the Buy Now option, click the Buy button and submit your credit card information.

Confirmation & Summary Page

Now that you have registered your Access Code, a confirmation page informs you of the

site(s) you have access to and that you will be receiving a confirmation e-mail if you entered your email address on the change password screen.

To log in now and begin using your course:

Confirm that your Access Code has been registered, click **Return to Course**.

You are automatically logged in and will see the MyLabsPlus area that you originally selected, whether Homework, Study Plan etc.

Congratulations, you have successfully registered for your MyLabsPlus course.

Be sure to keep the email confirmation sent to you. You can print a copy of the Confirmation & Summary page to so you will have a record of your login name and e-mail address used for your account.

If you need help completing the Login and Registration instructions listed above, you can check the Tutorial pages by clicking the Help button in the upper right hand corner of the MyLabsPlus course.

DON'T FORGET TO CHANGE YOUR PASSWORD!!!!

Appendix 2:

Instruction to Address a Safari Error

Currently the new Safari (for Macs) browser 5.1.4 (and above) defaults the browser settings to cause an authentication error.

The exact error message is:

Authentication Required

There is a problem with your authentication, possibly due to inactivity. For your safety, you have been logged out and must sign in again to continue.

The user will not be able to log in after entering in their login credentials on the sign in page. Here is how to adjust it if you are a student or instructor. (See links)

Answer Title: Safari: Accepting Cookies

Answer Link: http://247pearsoned.custhelp.com/app/answers/detail/a id/8970

Answer Title: Safari: Adding a Top (Trusted) Site

Answer Link: http://247pearsoned.custhelp.com/app/answers/detail/a id/10120

Although it shouldn't be an issue for IE, unless a user adjusts the settings wrong, here is how you adjust it.

Accept 1st and 3rd party cookies, and always allow session cookies. (Tools > Internet Options > Privacy > Advanced > Override automatic cookie handling > Accept First and Third-Party Cookies > Always allow session cookies > OK > OK > Restart Browser.)

1.



2. Block third-party cookies, but make sure all the main websites are listed as trusted sites. (Internet Options > Security > Trusted sites in top box > sites > Add)

http://mathxl.com

http://pearsoned.com

http://pearsoncmg.com

http://ecollege.com