

Introductory Chemistry II – CHMA11 Winter 2018

University of Toronto Scarborough

Welcome to Introductory Chemistry II! Chemistry is an exciting subject with far-reaching applications in countless disciplines (biology, medicine, geology, environmental science, neuroscience, forensics, food science - the list goes on!). CHMA10 might have given you a taste of this, but in this course we're going to take things even further. We'll be continuing to teach you the fundamentals of the subject, but our hope is that this course will also give you an appreciation for the depth and importance of this discipline. By the end of the semester, you should be thoroughly convinced that chemistry is indeed *all around you!* Before we get started, please take a few minutes to read through this document. It contains important information, which will help make sure you have all the tools you need to succeed in this course.

Instructors

James Donaldson, EV454 (weeks 1–6)
Email: jdonalds@utsc.utoronto.ca
Office Hours: Monday and Wednesday 10–11:30

Ruby Sullan, EV566 (weeks 7–12)
Email: ruby.sullan@utoronto.ca
Office Hours: Wednesday and Friday 9:00–10:30

Lab Coordinator

Scott Ballantyne, SW155C
Email: sballant@utsc.utoronto.ca
Office Hours: Monday and Thursday 10:30–12:00

Required Textbook

Chemistry: A Molecular Approach, 2nd Canadian Edition, by Nivaldo J. Tro, Travis D. Fridgen, Lawton E. Shaw, Pearson Canada Inc.

Email Policy

- Use UTSC account for all your correspondences. If other accounts (Yahoo, Gmail, Hotmail, etc.) are used, your email will be filtered out as spam and may not be received.
- Put CHMA11 in the subject line followed by the reason for the email.
- Use professional language with a formal greeting - NOT "Hey".
- Sign the email with your first and last name. Include your student ID number after your name.

- Every effort will be made to respond to student emails within 36 hours (M-F) provided that the above protocol is used.
- A note on email content: Please do not email questions to the instructors regarding timing of the lecture material; assigned readings; suggested problems or exam format. These will be posted on Blackboard. Questions on the lab material should be directed to Dr. Scott Ballantyne.

Lecture Schedule

LEC01: Monday, Wednesday, Friday in AC223, 12:00–13:00

LEC02: Monday, Wednesday, Friday in AC223, 13:00–14:00

Course Schedule

Week	Dates	Topic(s)	Suggested Reading
1	Jan 5	Course Overview	
2	Jan 8–12	Chemical Kinetics	13.1–13.6
3	Jan 15–19	Dynamic Chemical Equilibrium	13.7–14.6
4	Jan 22–26	Acid-Base Equilibria in Aqueous Solution	14.7–15.7
5	Jan 29–Feb 2	Acid-Base Equilibria in Aqueous Solution cont.	15.8–15.11
6	Feb 5–9	Aqueous Ionic Equilibria	16.1–16.4
7	Feb 12–16	Aqueous Ionic Equilibria cont. and Review	16.5–16.8
8	Feb 19–23	Reading Week	N/A
9	Feb 26–Mar 2	Gibbs Energy and Thermodynamics	17.1–17.4
10	Mar 5–9	Gibbs Energy and Thermodynamics cont.	17.5–17.9
11	Mar 12–16	Electrochemistry	18.1–18.4
12	Mar 19–23	Electrochemistry cont.	18.5–18.8
13	Mar 26–30	Biochemistry	22.1–22.4
14	Apr 2–6	Biochemistry cont.	22.5–22.7
15	Apr 9–13	Study Break	

Website

CHMA11 maintains a Blackboard web space, which archives a variety of course-related information including: grades, class announcements, lecture and lab materials (including access

to recorded lectures), contact information and links to outside resources. In addition, class emails will periodically be sent via Blackboard. **In order for you to receive these emails, you must have a valid "utoronto.ca" email account registered with ROSI.**

To login, go to: <https://portal.utoronto.ca/webapps/portal/frameset.jsp>. Click on "log-in to the portal" at the top left. Login using your UTORid username and password (same as what's used for your UTORmail). Under the "My Courses" box (top right), click on the CHMA11 link.

Examinations

Midterm: There will be one 90-minute mid-term test written outside of class either just before or just after Reading Week. The exact date, time and location will be announced as soon as they are available. If you miss the mid-term due to a legitimate reason, you must submit appropriate documentation *within one week of your absence, then, the weight of the midterm mark would be transferred to the final exam.* If the reason is medical, an official UTSC medical form should be downloaded from the Registrar's website: http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf and completed and signed by your physician. Students will not be permitted to write a make-up exam. **If no acceptable documentation is received, you will receive a grade of zero for that test.**

Final Examination: 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.** E.g. for a missed April Final Exam, the make-up Exam is in August. Your documentation is crucial for a successful petition and must be submitted by the last day of the exam period. Check the UTSC Calendar for instructions and deadlines.

Laboratories

Labs: The laboratory component of CHMA11 is compulsory. In order to pass the course, you must also pass the lab component.

Lab Schedule: Laboratory periods are three hours in length and run every other week. Students with odd numbered practicals (Week 1 students) have their first during week of January 15th. Those with even numbered practicals (Week 2 students) will have their first lab the week of January 22nd.

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.

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. In addition, 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).

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. Students registered in CHMA11H3S will be automatically enrolled in the WHMIS 2015 Training course for the Winter 2018 semester. **All students must complete the Winter 2018 course and your WHMIS results from the Fall 2017 course will not be accepted.**

Once the course is made available an email announcement will be made and a link to the course will appear in your "My Courses" window of your blackboard home page. As part of this course, students will be expected to watch a couple of videos (approximately 90 minutes long in total) and take a multiple choice quiz on the material you just learned. Students must obtain 80% on the quiz to pass the WHMIS course. **In addition, students 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 approved indirect vented chemical splash safety goggles, and a lab coat before attending their first lab. These items can be purchased from both the Environmental and Physical Sciences Student Association (EPSA) and the Biology Student Association (BioSA) or through the bookstore. All safety eyewear must meet either ANSI Z87+ or CSA Z94.3 Standard for high impact protection (if you see one of those standards stamped on your eyewear somewhere then they meet that particular standard). Students can wear their safety glasses during your quizzes and pre-lab discussion; however, when the experiment begins, students will be required to wear their indirect vented chemical splash goggles.

Labs coats must be 100% cotton – no exceptions. Further information regarding appropriate attire please see the guidelines outlined in your lab manual. **Note that students not wearing approved safety gear will not be allowed to participate in the lab.**

Ancillary Fees: Students taking CHMA11 will be assessed a \$20.00 ancillary fee which will cover the cost of chemicals, filter paper, Pasteur pipettes and other items consumed over the course of

the lab. For more information regarding ancillary fees students are encouraged to visit the following website: <http://www.planningandbudget.utoronto.ca/tuition.htm>

Facilitated Study Groups: CHMA11 is supported by Facilitated Study Groups. These weekly study sessions are open to everyone in the class. Attendance is voluntary, but students who attend regularly often earn higher grades. Please be sure to fill out the survey in the first week of class to help ensure the study groups are scheduled at optimal times. If you have any questions, please ask your facilitator, or visit the FSG website at <http://ctl.utsc.utoronto.ca/home/fsg>.

Please note that FSGs will NOT give out answers to any lab assignments.

Grade Calculation

Your final grade in the course will be calculated according to the grading scheme below:

Course Component	Percentage
Laboratory*	25%
Mastering Chemistry Tests	5%
Mid-Term Test	30%
Final Exam	40%

**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!)*

Calculators: Only non-programmable, non-communicating calculators are allowed in tests and exams for this course (both lecture and lab). Invigilators have the authority to check calculators and to confiscate illegal models. 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.

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.

MasteringChemistry homework: Several on-line assignments will be administered through MasteringChemistry, which allows you to practice at your own pace, receive meaningful feedback and use additional learning resources.

To sign up for MasteringChemistry, you will require:

- **Email:** You'll get some important emails from your instructor at this address.
- **Course ID:** **CHMA11WINTER2018DJD**
- **Access code or credit card:** An access code card may be packaged with your new book or may be sold by itself at your bookstore. Otherwise, you can buy instant access with a credit card or PayPal account during registration.

To register and join the course:

1. Go to www.masteringchemistry.com.
2. Under Register Now, select **Student**.
3. Confirm you have the information needed, then select **OK! Register now**.
4. Enter your instructor's Course ID (**CHMA11WINTER2018DJD**), and choose **Continue**.
5. Enter your existing Pearson account **username** and **password** and select **Sign in**.
You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, or MasteringPhysics.
If you don't have an account, select **Create** and complete the required fields.
6. Select an access option.
Enter the access code that came with your textbook or was purchased separately from the bookstore. **If you didn't buy the book** and do not have an access code, you can buy access using a credit card or PayPal account, but please note that your bookstore carries the standalone codes for \$60 Canadian and it will be **cheaper** to buy at the bookstore
7. From the "You're Done!" page, select **Go to My Courses**.
8. Select **Yes** and enter your Course ID to join your course. Click **Continue**.
9. **IMPORTANT:** You will now be asked to input your 8-digit UTorID. This ID can be found above the barcode on the left of your TCard. Click **Continue**.
10. That's it! You should see the Course Home page for the course.

To sign in later:

1. Go to www.masteringchemisty.com and select Sign In.
2. Enter your Pearson account **username** and **password** from registration, and select **Sign In**.

If you forgot your username or password, select **Forgot your username or password?**

To join another course for the same textbook (no additional purchase needed):

1. **Sign in** with the **username** and **password** that you specified during registration.
2. Click **My Courses** in the upper left and then choose **Join Another Course**.
3. Enter the Course ID from your instructor and click **Continue**.
4. If asked, enter your Student ID according to the instructions provided and click **Continue**.
5. To switch courses, click **My Courses** and select a course from the **Switch to a Different Course** menu.

For questions related to MasteringChemistry, contact Pearson 24/7 support:

<https://support.pearson.com/getsupport>

Academic Integrity: Academic integrity is important to maintain our community which honours the values of honesty, trust, respect, fairness and responsibility and to protect you and the value of the degree towards which you are all working so diligently.

It is an offence for students 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
- Include false, misleading or concocted citations in their work.
- Obtain unauthorized assistance on any assignment
- 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.- eg: doctor's notes
- o use or possess an unauthorized aid in any test or exam.

There are other offences under the Code, but these are the most common.

Please respect these rules. Offences will be dealt with according to the procedures outlined in the Code of Behaviour on Academic Matters.