



CHM 247H: INTRODUCTORY ORGANIC CHEMISTRY II

Winter 2023 Course Syllabus

note: all times are listed as Eastern Time (ET)

I TEACHING TEAM



COURSE COORDINATOR & INSTRUCTOR (Weeks 1 – 6)

Name: Professor Andrew P. Dicks

Email: andrew.dicks@utoronto.ca

Research: chemistry.utoronto.ca/people/directories/all-faculty/andrew-p-dicks

In-person student hours during Weeks 1 – 6: directly after each class for as long as there are questions, and through Zoom on W from 4–6 p.m., starting on Wednesday 11th January: [REDACTED]; Passcode: [REDACTED]

Also available by email appointment for either in-person or online meetings



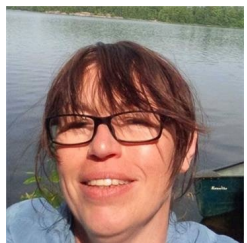
INSTRUCTOR (Weeks 7 – 12)

Name: Professor Mitch A. Winnik

Email: m.winnik@utoronto.ca

Research: <https://sites.chem.utoronto.ca/chemistry/staff/MAW>

Student hours: to be announced on Quercus



LABORATORY COORDINATOR

Name: Dr. Mima G. Staikova

Email: mima.staikova@utoronto.ca

Student hours: to be announced on Quercus



TUTOR (T5, room MS 3154 starting the week of Monday 16th January)

Name: Ben Chiu

Research: <https://sites.chem.utoronto.ca/rousseau/people/current>

Student hours: held in-person directly after each tutorial



TUTOR (W5, room LM 162 starting the week of Monday 16th January)

Name: Helen Nguyen

Research: <https://sites.chem.utoronto.ca/nitz/people/current>

Student hours: held in-person directly after each tutorial



TUTOR (F2, room LM 162 starting the week of Monday 16th January)

Name: Alex Gabbey

Research: <https://sites.chem.utoronto.ca/rousseau/people/current>

Student hours: held in-person directly after each tutorial

II COURSE OVERVIEW

A very warm welcome to the University of Toronto's second introductory organic chemistry course which is primarily designed for life science and health science students! CHM 247H focuses on many fundamental principles of the discipline, with particular attention paid to the applications and major reactions of organic compounds: central concepts regarding organic reaction mechanisms, synthesis, and structure elucidation via spectroscopic methodologies will be covered in detail. The course features a significant amount of problem-solving: both during and outside formal classroom, tutorial, and laboratory time. All of this will build extensively on material discussed in prerequisite courses (CHM 135H + CHM 136H, or CHM 151Y), and **a thorough understanding of first-year concepts covered in these courses is essential for success**. CHM 247H is recommended for students enrolled in any science program that involves a small amount of chemistry. *Students taking any Chemistry specialist program (including Biological Chemistry) or who will be including a substantial amount of chemistry in their degree (such as those following a Chemistry major program) are either required to or strongly encouraged to take CHM 249H (Organic Chemistry) instead.* The specific 200-level courses offered by the Department of Chemistry and how they are connected to each Chemistry program are listed here: chemistry.utoronto.ca/current-students/second-year-chemistry-course-requirements.

We sincerely hope that CHM 247H will exceed your expectations: *we are all here to support your learning as much as possible and are very invested in your success!* We would appreciate your comments and suggestions so that we can make the course as helpful and interesting as possible: do feel free to discuss any matters with the instructors, laboratory coordinator, tutors, and laboratory teaching assistants (TAs).

STUDENT LEARNING OUTCOMES:

Upon successful completion of CHM 247H, students will be able to:

- demonstrate an understanding of and apply the structural elucidation techniques of infra-red spectroscopy and nuclear magnetic resonance spectroscopy *in order to* determine the atom connectivity of unknown molecules
- recognize important classes of functional groups and use knowledge of their reactivity patterns to predict the products of organic transformations
- demonstrate an understanding of the fundamental principles underlying the behavior of organic compounds as nucleophiles and electrophiles
- formulate fundamental organic reaction mechanisms by appropriately describing electron flow *in order to* write reasonable mechanisms for new reactions
- apply organic reactions and their conditions *in order to* propose synthetic pathways for given target compounds of interest
- safely conduct chemical experiments in the laboratory using a variety of classical techniques using modern instrumentation
- collect, record, and interpret laboratory results

- use problem solving and critical thinking skills to combine their theoretical knowledge with laboratory results in order to solve scientific problems
- develop effective scientific communication skills through written laboratory reports

Through these learning outcomes, successful students will appreciate the pivotal roles that organic chemistry principles play in the life and health sciences by understanding their connections to biologically- and industrially important substances. They will also value the contributions of chemists from diverse backgrounds to the development of organic chemistry as a scientific discipline, through the highlighting of achievements made by workers from underrepresented groups.

PREREQUISITE COURSES:

This course assumes you have a fundamental and thorough understanding of content presented in CHM 135H (Chemistry: Physical Principles) and especially CHM 136H (Introductory Organic Chemistry I). CHM 151Y (Chemistry: The Molecular Science) is a suitable alternative prerequisite course. CHM 247H may be counted towards certain Chemistry programs of study, although as noted previously it is either required or highly recommended that students enrolled in such programs take CHM 249H instead. *It is highly recommended that you interact with the Quercus LEC section website "First-Year Organic Chemistry Resource Videos" if you feel you need to brush up on first-year course content.*

REFERENCE MATERIAL:

The *required* textbook for CHM 247H is "Organic Chemistry", 9th edition by J. McMurry plus the optional accompanying Study Guide & Solutions Manual. This is the same textbook as required in CHM 136H and CHM 151Y: you can purchase a digital copy of the textbook/study guide [here](#), or a physical copy [here](#). The 8th edition of McMurry can also be used with information posted at the CHM 247H Quercus LEC section website that gives the translation of the numbering of problems at the end of the chapters. A molecular model kit will be very useful for most of the course. The "Molecular Visions" kit by Darling Models is recommended for this, as well as other undergraduate organic chemistry courses at U of T, although other model kits are helpful too. Models may be used as an aid in all online and in-person assessments.

III HOW THE COURSE IS ORGANIZED

OVERVIEW:

CHM 247H has three instructional components to it: classes, tutorials, and laboratories, as well as a course discussion board. **As per the Faculty of Arts & Science timetable, all instruction will be delivered in-person as of Monday 9th January.** An announcement will be made if the delivery mode of any or all instructional components needs to change due to the ongoing COVID-19 pandemic.

CLASSES:

Classes will be offered in-person ONLY throughout the semester (classes will not be recorded). **Please note that you MUST ONLY ATTEND THE CLASSES FOR THE SECTION YOU ARE ENROLLED IN (LEC0101: MWF from 2–3 p.m. in room ES 1050; LEC0201: MTR from 4–5 p.m. in room BA 1160).** Be sure to come prepared by having done some textbook reading (getting an overview of what will be discussed in class ahead of time is highly recommended!) and having printed out the class notes posted on the Quercus LEC section website in advance. Do note that simply reading the posted class notes and/or textbook is not a substitute for attending classes! It is essential that you attend the in-person classes in order to solidify your understanding of the fundamental course material (planned class content is described on p. 5-6). Recordings from the Winter 2022 academic semester will be made available for a limited time if you cannot attend a class in-person due to illness or other

unexpected reason, *but do be aware that these recordings will only supplement the in-person classes and cannot replace the classes as a mechanism to help you learn.* Recordings will generally be available several days after the corresponding content has been taught in the in-person classes and will not be absolutely identical to material covered during the current course.

TUTORIALS:

Tutorials begin the week of Monday 16th January and will be offered in-person ONLY throughout the semester (tutorials will not be recorded). **The tutorials are an integral part of the CHM 247H instruction and regular attendance is VERY HIGHLY RECOMMENDED.** They are run by experienced graduate student teaching assistants and have a problem-solving format. Questions will be posted on Wednesdays throughout the semester (starting on 11th January) which will form the primary basis of each tutorial session. **Active student participation in problem-solving through completion of tutorial questions is linked to success in learning organic chemistry:** these questions, as well as the assigned textbook problems, will provide you with an important opportunity for self-assessment, help you make sure you are keeping up with the course materials, and are essential preparation for tutorials. Please be aware that the “model” answers to tutorial questions will NOT be posted, so that you are encouraged to problem-solve and to attend each tutorial where you may ask questions or seek clarification of fundamental concepts. You are welcome to attend any of the three tutorial sections that fit your schedule as follows: T5–6 p.m. (room MS 3154, directly following class); W5–6 p.m. (room LM 162); F3–4 p.m. (room LM 162, directly following class). **Throughout the semester, each tutor will be available for as long as there are questions immediately following each tutorial session. You should however refrain from emailing course content questions to tutors (such questions should be posted on the course discussion board, see p. 5).**

LABORATORIES:

The laboratories are a mandatory aspect of this course. The purpose of the laboratory activities is to introduce you to some fundamental techniques in the context of organic reactions that you will learn about in the classroom component of CHM 247H. The laboratories include four “wet” organic experiments, offered only in-person throughout the semester and one computational experiment, which is conducted virtually.

The laboratories run biweekly and will begin during the week of Monday 16th January for PRA section numbers ending in “1”, and during the week of Monday 23rd January for PRA section numbers ending in “2”. Each student will be assigned to a demonstrator group number and a bench number for all wet experiments. The detailed schedule of the laboratories and the demonstrator group numbers/bench numbers will be posted at your CHM 247H Quercus PRA section website during the first week of classes. *If you have not yet registered for a practical section on ACORN, please do so as soon as possible. If ACORN registration is no longer available, please **immediately** contact the laboratory instructor Dr. Mima Staikova (contact information on p. 1).*

The first laboratory you will perform is a computational experiment. When the Computational Laboratory module becomes available on your PRA section you will work independently on the experimental tasks, performing computations of compound properties on WebMO, the Department of Chemistry computer server. Each student will use their own user ID and password (details on your PRA section) and will have their own WebMO directory where the computational jobs will be executed and collected. Students will have about a week to finish as many of the required calculations as possible (during this period, students can do them in their own time). At the end of the week, you will have a one-hour virtual meeting (mandatory) with a teaching assistant to discuss the laboratory topic, potential problems you might have had with the computations, and discuss details of the report. The reports are to be uploaded on the PRA section and are due two weeks after the TA virtual meeting. After this, the four wet experiments are performed in person in room LM 217. Each student will

perform all of the experiments in the same demonstrator group and on the same assigned bench space on the weekday of your PRA section in biweekly intervals.

Students are expected to attend all laboratory sessions. If you cannot attend a laboratory session for a reason beyond your control, you need to complete an absence declaration on ACORN and notify Dr. Staikova as soon as you are able (no later than three days after the missed session). In such a case you will be excused from the experiment and your grade for it will be assigned as an average of the other laboratory grades. If you happen to miss a second session for reasons behind your control, you will need to meet with Dr. Staikova for special arrangements. In such a case your grade for the missed experiment will be tied to your performance in all graded components of CHM 247H. **To pass the course a personal attendance at a minimum of three “wet” experiments is required. No make-up laboratory sessions will be offered.**

In advance of each laboratory, we expect you to read all assigned materials, watch the relevant videos, and complete a quiz. After each laboratory, you will submit a written report. The corresponding reports are due two weeks after the day of the experiment. Reports can only be submitted with data collected in-person during your lab session. **All laboratory materials and reports will be handled within your CHM 247H Quercus PRA section website:** if you have any questions or concerns about any aspect of the laboratory activities, please contact Dr. Staikova.

COURSE DISCUSSION BOARD:

In addition to instructor/tutor student hours, we will be using the Ed discussion board platform that facilitates online questions and answers. Information about the platform will be made available as an announcement at the CHM 247H Quercus LEC section website. You are strongly encouraged to ask your content questions on this discussion board where all students can benefit. **The teaching team will be monitoring the discussion board and providing input as needed, although we expect students to be helping each other as much as possible.** Please note that posting assessment/laboratory report questions and/or sharing solutions to these questions is in violation of the University of Toronto’s Code of Behaviour on Academic Matters (see the Academic Integrity section of the syllabus for more details).

OTHER AVAILABLE SUPPORTS:

The Victoria College Peer Tutoring program (www.vic.utoronto.ca/current-students/registrars-office/tutor) supports our introductory organic chemistry courses (whether you wish to solidify your understanding of concepts from CHM 136H/CHM 151Y or to ask more advanced questions pertaining to CHM 247H material). If you would like further support in a small-group online environment, you are also highly encouraged to investigate the Recognized Study Group (RSG) Program (<https://sidneysmithcommons.artsci.utoronto.ca/recognized-study-groups/join>). These are small, student-led study groups of up to eight classmates enrolled in the same course within the Faculty of Arts & Science. RSGs meet online through Quercus or Zoom each week: more information will be announced during mid-January about this initiative.

IMPORTANT WINTER 2023 SESSIONAL DATES:

First Day of S classes: Monday 9th January

Family Day: Monday 20th February

Winter Reading Week (no classes): Monday 20th – Friday 24th February

Last Day to Drop S Courses: Sunday 19th March

Last Day of S classes: Thursday 6th April

Good Friday (no classes or final examination/assessments): Friday 7th April

April Final Examination Period: Tuesday 11th – Friday 28th April

PLANNED CLASS CONTENT* & ASSESSMENT SCHEDULE (WEEKS 1 – 6: Professor Dicks):

Week #	Dates	Topics & McMurry Chapter References
1	Jan. 9 th – 13 th	Introductory course information Infrared (IR) Spectroscopy (Chapter 12) <i>Start</i> Nuclear Magnetic Resonance (NMR) spectroscopy (Chapter 13)
2	Jan. 16 th – 20 th	Nuclear Magnetic Resonance (NMR) spectroscopy (continued)
3	Jan. 23 rd – 27 th	<i>Finish</i> Nuclear Magnetic Resonance (NMR) spectroscopy <i>Start</i> Chemistry of alkynes (Chapter 9)
4	Jan. 30 th – Feb. 3 rd	<i>Finish</i> Chemistry of alkynes Concepts of organic synthesis and retrosynthetic analysis
5	Feb. 6 th – 10 th	<i>Start</i> Electrophilic aromatic substitution reactions (Chapter 16)
Quiz 1: Monday 6th February, 9:00 a.m. – 9:00 p.m. (30 minutes)		
6	Feb. 13 th – 17 th	<i>Finish</i> Electrophilic aromatic substitution reactions Nucleophilic aromatic substitution reactions (Chapter 16) <i>Start</i> Chemistry of alcohols and phenols (Chapter 17)
Term Test 1: Wednesday 15th February, starting at 6:10 p.m. (75 minutes) Test “Debrief” Session (Online): Friday 17th February, starting at 4 p.m.		
WINTER READING WEEK: Monday 20th – Friday 24th February		

*timings of when specific class content will be taught are approximate

PLANNED CLASS CONTENT* & ASSESSMENT SCHEDULE (WEEKS 7 – 12: Professor Winnik):

Week #	Dates	Topics & McMurry Chapter References
7	Feb. 27 th – Mar. 3 rd	<i>Finish</i> Chemistry of alcohols and phenols Chemistry of ethers, epoxides, and thiols (Chapter 18) <i>Start</i> Chemistry of aldehydes and ketones (Chapter 19)
8	Mar. 6 th – 10 th	<i>Finish</i> Chemistry of aldehydes and ketones <i>Start</i> Chemistry of carboxylic acids, nitriles, and derivatives (Chapters 20 & 21)
9	Mar. 13 th – 17 th	<i>Finish</i> Chemistry of carboxylic acids, nitriles, and derivatives
Quiz 2: Monday 13th March, 9:00 a.m. – 9:00 p.m. (30 minutes)		
10	Mar. 20 th – 24 th	Enols, α -substitutions, malonic ester and acetoacetic ester synthesis (Chapter 22) <i>Start</i> Carbonyl condensation reactions (Chapter 23)
Term Test 2: Wednesday 22nd March, starting at 6:10 p.m. (75 minutes) Test “Debrief” Session (Online): Friday 24th March, starting at 4 p.m.		
11	Mar. 27 th – Mar. 31 st	<i>Finish</i> Carbonyl condensation reactions <i>Start</i> Chemistry of amines (Chapter 24)
12	Apr. 3 rd – Apr. 6 th	<i>Finish</i> Chemistry of amines Review prior to final examination (if time permits)

*timings of when specific class content will be taught are approximate

IV EVALUATION/GRADING SCHEME

OVERVIEW:

Quizzes (x2): 10%

Term Tests (x2): 35%

Final Examination: 30%

Laboratory: 25% (breakdown of grades to be provided on Quercus)

FORMAL ASSESSMENT DATES & MARK BREAKDOWN:

1. Quiz 1 (5%*, Monday 6th February): 30 minutes, to be written online through Quercus anytime within a 12-hour window between 9 a.m. – 9 p.m.

2. Term Test 1 (20% or 15%** , Wednesday 15th February): in-person, starting at 6:10 p.m., 75 minutes.
Online “debrief” session to be held on Friday 17th February starting at 4 p.m.

3. Quiz 2 (5%*, Monday 13th March): 30 minutes, to be written online through Quercus anytime within a 12-hour window between 9 a.m. – 9 p.m.

4. Term Test 2 (20% or 15%** , Wednesday 22nd March): in-person, starting at 6:10 p.m., 75 minutes.
Online “debrief” session to be held on Friday 24th March starting at 4 p.m.

5. Final Examination (30%, April Final Examination Period: Tuesday 11th – Friday 28th April, in-person, three hours). The actual date of the final examination will be set by the Faculty of Arts & Science and could occur on the last date mentioned.

*note that **if both quizzes are written**, the highest grade earned on the two quizzes will count as the total quiz grade out of 10%. Each quiz will be multiple-choice in nature.

**note that the highest test grade earned on Term Tests 1 and 2 will be weighted at 20%, with the other test weighted at 15%. Each test will not be explicitly cumulative. For students missing one term test for a valid reason, the remaining term test will be worth 20% and the final examination will be worth 45%. If you have a University of Toronto course conflict with both term tests you will be given an opportunity to write each test at an alternative time.

IMPORTANT: if an unexpected technical issue occurs with a university system (e.g., Quercus services, network outage) that affects availability or functionality, it may be necessary to revise the timing or weighting of the online quizzes.

V IMPORTANT COURSE POLICIES

- Each member of this course is expected to maintain a:
 - professional and respectful attitude during all course components, including classes, laboratories, tutorials, assessments and any online activity
 - personal calendar/schedule/organizer to ensure that all course activities are completed, and due dates are met
 - collection of notes recorded independently based on concepts covered in course activities (students registered with Accessibility Services requiring a class note-taker will have access to this accommodation)
 - familiarity with the university policy on Academic Integrity (overleaf)

- General CHM 247H LEC course website: q.utoronto.ca (in your Quercus Dashboard, click on “CHM 247H Winter 2023”). **You will also need to access your CHM 247H Quercus PRA section website for laboratory information. Please check the Quercus course websites (LEC & PRA) regularly (daily!) for:**
 - general course information
 - class notes
 - tutorial questions
 - all important announcements related to assessments, laboratories, and tutorials
 - access to the course discussion board
 - other useful resources to help support your success
- Email will generally be responded to within 24 hrs. on weekdays. Email will only be accepted if: (1) You send it from your utoronto.ca account; (2) You identify yourself in the email subject as a student in CHM 247H and include your name and University of Toronto student ID number; (3) No attachments are sent, unless official university correspondence is being forwarded (e.g., a letter detailing academic accommodations or a screenshot of an ACORN absence declaration); (4) You are aware that organic chemistry can be talked about much more effectively through tutorial sessions, student hours or via the course discussion board rather than by email, and that sending emails is not a substitute for attending classes. The finalized student hours for each instructor will be posted at your CHM 247H Quercus LEC website and they are additionally available by appointment.

Important: be sure to email only ONE person within the CHM 247H instructional team, depending on the nature of your concern. Please do not send emails through the Quercus internal email system (they will not be responded to): the contact information for the course instructors/laboratory coordinator is listed on p. 1.

- The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another’s differences. As members of the course teaching team, we will neither condone nor tolerate behaviour that undermines the dignity or self-esteem of any individual in this course and wish to be alerted to any attempt to create an intimidating or hostile environment. It is our collective responsibility to create a space that is inclusive and welcomes discussion. Discrimination, harassment and hate speech will not be tolerated. If you have any questions, comments, or concerns, we encourage you to reach out to the staff in our Equity Offices.
- Aspects of this course, including your participation, may be recorded on video and if so will be available to students in the course for viewing remotely and after each session. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright: for questions about recording and use of videos in which you appear please contact your instructor. *Students may not create audio or video recordings of classes with the exception of those students requiring an accommodation for a disability, who should contact the instructor prior to beginning to record classes for written permission.* Students creating unauthorized audio recording of classes violate an instructor’s intellectual property rights and the Canadian Copyright Act. Students violating this agreement will be subject to disciplinary actions under the Code of Student Conduct. Course

videos may not be reproduced or posted or shared anywhere other than the official CHM 247H Quercus websites and should only be used by students currently registered in the course.

- Laboratory reports and all online assessment responses are to be submitted through the CHM 247H Quercus websites only. Late laboratory reports will be deducted at 10% per day, and assessment responses will not be accepted at all after the due date/time. Please be aware that completed laboratory reports will not be accepted once graded work has been distributed to the rest of the class.
- **There are no make-up quizzes or term tests in CHM 247H, and there are no make-up laboratory sessions.** Students who are absent from class for any reason (e.g., COVID-19 illness, other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on ACORN under the “Profile and Settings” menu. **A student who misses a scheduled quiz or term test must additionally contact Professor Dicks via email with a screenshot of their ACORN absence declaration (see information on p. 1) WITHIN ONE WEEK to discuss their situation. This is a requirement to receive consideration for the missed quiz or test.**

VI TECHNOLOGY REQUIREMENTS

- This course requires the use of computers, and technical issues are possible. When working on a piece of academic work, students are responsible for scheduling enough time to allow for reasonable delays due to technical difficulties to be overcome, so such issues will not be acceptable grounds for deadline extension. Particularly, maintaining an up-to-date independent backup copy of your work is strongly recommended to guard against hard-drive failures, corrupted files, lost computers, etc.

VII INSTITUTIONAL POLICIES AND SUPPORT

ACADEMIC INTEGRITY:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student’s individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto’s Code of Behaviour on Academic Matters (governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In laboratory reports:

1. Using someone else’s ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any report. **Please note that the use of websites (such as Chegg.com or the Ed course discussion board) to post laboratory report material/questions or to post/access answers to questions is an academic offence under the University of Toronto’s Code of Behaviour on Academic Matters. Alleged instances of this nature are forwarded to the Faculty of Arts & Science Student Academic Integrity office.**

On quizzes and term tests:

1. Using or possessing unauthorized aids. **Please note that the use of websites (such as Chegg.com or the course discussion board) to post quiz or other assessment questions, or to post/access answers to questions is an academic offence under the University of Toronto's Code of Behaviour on Academic Matters. Alleged instances of this nature are forwarded to the Faculty of Arts & Science Student Academic Integrity office.**
2. Looking at someone else's answers or collaborating/discussing answers during a quiz or other assessment.
3. Misrepresenting your identity.

In general academic work:

1. Falsifying institutional documents or grades.
2. Falsifying or altering any documentation required by the University.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see www.academicintegrity.utoronto.ca/).

PLAGIARISM DETECTION:

Normally, students will be required to submit their course essays and tests to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their work to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site: <https://uoft.me/pdt-faq>.

ACCESSIBILITY NEEDS:

Students with diverse learning styles and needs are welcome in CHM 247H. The University of Toronto is committed to accessibility: if you require accommodations for a disability, or have any other accessibility concerns about the course, please contact [Accessibility Services](#) as soon as possible. If possible, please submit your accessibility letter at the beginning of the course and not right before an assignment is due.

ACCOMMODATIONS FOR RELIGIOUS OBSERVANCES:

Following the University's policies, reasonable accommodations will be made for students who observe religious holy days that coincide with the due date/time of an assignment, class or laboratory session. Students must inform the instructor **before** the assignment date to arrange accommodations.

ADDITIONAL SERVICES & SUPPORT:

The following are some important links to help you with academic and/or technical service and support:

- General student services and resources at [Student Life](#)
- Full library service through [University of Toronto Libraries](#)
- Resources on conducting online research through [University Libraries Research](#)
- Resources on academic support from the [Academic Success Centre](#)
- Learner support at the [Writing Centre](#)
- Information for [Technical Support/Quercus Support](#)

ACKNOWLEDGEMENT OF TRADITIONAL LANDS:

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca and, most recently, the Mississaugas of the Credit River. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.