Faculty of Science

Department of Chemistry

CHEM 1100, Section A02 and A05

Introductory Chemistry 1: Atomic and Molecular Structure and Energetics

Course Syllabus, Fall 2025

Indigenous Land Acknowledgement

The University of Manitoba campuses are located on original lands of Anishinaabeg, Ininiwak, Anisininewuk, Dakota Oyate and Dene, and on the National Homeland of the Red River Métis.

We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of Reconciliation and collaboration.

Some Technical Stuff…

Lecture Information

Lecturer: David Herbert <david.herbert@umanitoba.ca>
Lecture locations: Education Room 290
Lecture times: Tuesdays and Thursdays 11:30 am - 12:45 pm (Section A02) *or* 1:00 pm - 2:15 pm (Section A05)
Be sure to attend the lecture for your section!
Office hours: Wednesdays 12:00 pm – 1:00 pm

Electronic Communications and Questions

Your online security and privacy are important to us. Your instructors and all University of Manitoba personnel will only use your UM e-mail account (@myumanitoba.ca) for all communications. Such communications will always be sent from UM e-mail addresses, typically from the umanitoba.ca domain. Please be wary of e-mails sent from outside of the university to your UM e-mail account, particularly if they ask for personal information; these are flagged with a cautionary message at the top of the e-mail.

Likewise, you are expected to use your UM e-mail account (@myumanitoba.ca) for all communications with your instructors and all University staff. Questions sent from other e-mail accounts will not be answered. It is also expected that you will check your UM e-mail account regularly for communications sent to you by University staff. For information, please see:

https://umanitoba.ca/registrar/student-email-policy
https://umanitoba.ca/computing/ist/security/policies.html

In all e-mail correspondence, include "CHEM 1100" in the subject line.

For registration and technical questions for WileyPlus, visit: https://wpsupport.wiley.com/s/

UM Course Calendar Description

This course provides a basic understanding of the fundamentals of chemistry. By the end of this course, students will understand the periodic table, energy in chemistry, atomic and molecular structures, and the concept of chemical reactivity. May not be held with CHEM 1101, the former CHEM 1300, or the former CHEM 1301. Prerequisites: [one of Chemistry 40S (50%), CHEM 1018, CSKL 0100 (P), or the former CHEM 0900 (P)] and [one of Applied Mathematics 40S (50%), Pre-calculus Mathematics 40S (50%), the former Mathematics 40S (300) (50%), MATH 1018, or MSKL 0100].

More Technical Stuff… But Important Technical Stuff!

Course Overview

CHEM 1100 teaches essential (essential!!!) skills in chemistry. Core to this course is an understanding of the **energetics of reactions and processes**. From an understanding of **energy**, we can explain and probe a variety of **bonds, molecular shapes, electronic structures and properties**. Finally, this course begins to look at **dynamic equilibrium** and allows us to predict **qualitative** and **quantitative** results related to this important concept! The course has an emphasis on conceptual, qualitative and quantitative aspects of chemistry, and their relationship with daily life.

Prerequisites

All students entering CHEM 1100 should have a minimum of two years of previous high-school chemistry study (Chemistry 40S or their equivalent, such as CSKL 0100). A strong foundation in mathematics is also required (Precalculus 40S or Applied Math 40S or their equivalent, such as MSKL 0100). It is strongly advisable for all students to review all material listed as Prerequisite Knowledge in the Course Material Overview in this syllabus.

Registration eligibility

It is your responsibility to ensure that you are entitled to be registered in this course.

This means that:

- You have the appropriate prerequisites, as noted in the calendar description, or have permission from the Department of Chemistry to waive these prerequisites.
- If you are not entitled to be in this course, you will be withdrawn, or the course may not be used in your degree program. There will be no fee adjustment, and this cannot be appealed.

Course Expectations

You are expected to attend ***all*** lectures in your registered lecture section.

You are responsible for ***all*** course material, regardless of if it is explicitly covered in class. You are expected to read ahead. You are responsible for catching up with any course material missed due to absences.

You are expected to complete all online assignments before the respective deadlines. But note: these assignments do *not* provide sufficient practice to ensure success in this course. You are strongly encouraged to also complete the end-of-chapter questions and practice exercises on WileyPlus as well, particularly in areas in which you mightneed practice.

You are expected to follow all of the policies listed in this document!

Course Resources… What You'll Need and Where to Find it

UM Learn Course Site

- The CHEM 1100 UM Learn course site is available for registered students at: http://umlearn.ca
- Your login name and password is the same as your UMnetID.
- Information posted on the UM Learn site includes the syllabus, lecture slides, links to WileyPlus and the electronic textbook, course resources, announcements regarding assignments and examinations, and much, much more!
- You should check UM Learn regularly for course news and information.

Technology Requirements

- A computing device and an internet connection on which you can comfortably and reliably access UM Learn, WileyPlus and the electronic textbook.

Course Materials

Textbook and online homework: J.A. Olmsted, G.M. Williams, R.C. Burk; *Chemistry*, Fourth Canadian Edition, and WileyPlus. There are three options to choose from at the Bookstore:

- ISBN: 9781119709435. Multiterm access to WileyPlus and the electronic textbook, $99.50
- ISBN: 9781119853459. Multiterm access to WileyPlus and permanent copy of the electronic textbook, $109.50
- ISBN: 9781119709459. Multiterm access to WileyPlus and the electronic textbook plus looseleaf copy of the textbook, $149.00

Additional information:

- Same textbook and WileyPlus will be used this academic year in CHEM 1110 (no additional cost).
- Buyer beware: when registering for WileyPLUS you are given the option to purchase access directly from Wiley using a credit card for seemingly the same price. Unlike the Bookstore options, this access is good for only a single term, so it cannot be used for CHEM 1110. We encourage you to purchase access through the Bookstore.
- Wiley has an "access til you pass" policy. If you previously purchased access to WileyPLUS for CHEM 1100 and it has expired, you can apply for a free extension by following the instructions at: https://wpsupport.wiley.com/s/article/Extending-Access-for-WileyPLUS

WileyPlus registration

1. Click on any WileyPlus link to the e-textbook or assignments on UM Learn. The first time you do this, you will be brought to a page with the heading, "Create a WileyPLUS account to unlock all of our learning content!"
2. Enter your name and UM e-mail address, click on the required box(es), and then click "Submit".
3. A 4-digit PIN will be sent to your UM e-mail address, which you will need to input and click "Submit".
4. At this point, you can proceed in one of two recommended ways:
   a. If you have purchased access to WileyPLUS from the Bookstore, you can enter the registration code you received at this point and then click "Submit".
   b. If you have not purchased access to WileyPLUS from the Bookstore, it is recommended that you click on "Get Started" in the "14-day free trial" option, which you will find near the bottom of the page.
      - Please note that the other purchase options on this page are more expensive than buying access to WileyPLUS from the Bookstore.

If you selected the 14-day free trial, you can upgrade your account after you have purchased access to WileyPLUS. If you are a returning student that has previously purchased Mastering Chemistry and you have filled in the form on UM Learn, you will be provided with instructions for how to upgrade your account for free.

Supplemental Instruction (SI) – *this part is important!!*

What are SI study groups?

Supplemental Instruction sessions are **free** weekly review sessions available to students who want to improve their understanding of certain courses. These voluntary sessions offer students an opportunity to interact on an informal basis so that they can:

- ask each other questions about the course
- compare notes
- discuss course content
- solve practice problems together
- develop new study strategies

What is an SI leader?

SI leaders are experienced students who can help you by sharing their own study strategies and techniques. They are familiar with the course material because they have already taken the course. They attend classes with you and offer weekly review sessions to help you learn. SI leaders are not there to lecture or re-teach the course; they provide you with opportunities to review actively with other students in an organized setting.

Why should I come?

If you attend SI regularly, you will gain a better understanding of course content, get a better grade, learn some new study strategies, and you might meet some new people.

How can I find out more?

Visit the following link for details on Supplemental Instruction offerings and SI schedule updates: http://umanitoba.ca/student/academiclearning/services/supplemental_instruction.html.

Fall 2025 Schedule:

Section	SI Leader	SI Session Time	Location
A01	Aliyhia Bushie	Monday (2:30-3:30 p.m.)	386 University College
		Thursday (7:00-8:00 p.m.)	Online
A02	**Jayde Paggao**	**Tuesday (1:00-2:00 p.m.)**	**201 Saint John's**
		Thursday (1:00-2:00 p.m.)	**201 Saint John's**
A03	Bliss Earnest	Wednesday (7:00-8:00 p.m.)	Online
		Friday (11:30 a.m.-12:30 p.m.)	108 Drake
A04	Olumide Ayeni	Monday (7:00-8:00 p.m.)	Online
		Wednesday (11:30 a.m.-12:30 p.m.)	201 Saint John's
A05	**Julius Altasin**	**Tuesday (2:30-3:30 p.m.)**	**201 Saint John's**
		Thursday (2:30-3:30 p.m.)	**201 Saint John's**
A06	Matthew Buchwald	Monday (4:00-5:00 p.m.)	313 Tier
		Wednesday (4:00-5:00 p.m.)	313 Tier
A07	Marcus Navasca	Tuesday (4:00-5:00 p.m.)	308 Tier
		Saturday (4:00-5:00 p.m.)	Online

While you are encouraged to attend the SI session for your class section, you are welcome to attend the SI sessions for *any* section.

Important dates

See Fall 2025 online calendar at: https://umanitoba.ca/registrar/important-dates-deadlines#fall-term-2025

Sept 3	Classes begin – *hooray!*
Sept 16	Last day to drop a course with full refund and no academic consequences
Sept 17	Last day to add a course
Sept 30	**National Truth and Reconciliation Day – *no classes or examinations***
Oct 13	Thanksgiving Holiday – *no classes or examinations*
Nov 10 – 14	**Fall term break – no classes or examinations**
Nov 18	Last day for Voluntary Withdrawal from Fall term courses
Dec 8	Last day of classes for Fall term
Dec 9 – 20	Final examination period

Grading

Final grades are determined based on the following breakdown:

Self-Assessment	1%
Assignments (3% each; best 8 of 10)	24%
Tests (2; 15% of your grade will be assigned to the higher mark, 10% to the lower mark of the two)	25%
Final Examination	50%

A final letter grade will be assigned based on your final percentage grade as follows:

≥ 92.0%	A+	66.0 – 74.9%	B	50.0 – 54.9%	D
82.0 – 91.9%	A	60.0 – 65.9%	C+	< 50.0%	F
75.0 – 81.9%	B+	55.0 – 59.9%	C		

Please note: final percentage grades are not rounded, nor are final class results scaled. We do not accept or offer any other options for improving grades.

A grade of C or better is required in CHEM 1100 before you are permitted to proceed to CHEM 1110 or CHEM 1130. A grade of C is also required to proceed to CHEM 1120 if you have not met the prerequisite requirements based on your high school (or equivalent) record.

Self-Assessment Exercise and On-Line Assignments

One quarter (25%) of your grade will be comprised of a self-assessment (1%) and weekly online assignments (best 8 of 10 for a total of 24%).

The assignments will be due each **Friday** and will roughly follow the course schedule. These will be administered using **Wiley Plus 'Adaptive Learning' assessments**.

In each assignment, you will first be prompted with readings from the textbook that cover the quizzed material. **Accordingly, it is not important if we have covered the material in lecture prior to you attempting the assignment!**

Your grade does not reflect how many questions you get wrong but rather tracks with your progress. If you get a question wrong, the Adaptive Learning module will prompt you with further readings and help you try again with different questions until you succeed! If you complete the assignment, you will earn full marks, regardless of how many questions it might take you.

Note: some chapters covered in lecture are *not* covered in the assignments (e.g., Chapter 3.6, 4.7) as we will discuss the chemistry in these chapters to a slightly different extent than your textbook.

There are **10 assignments** but only your **top 8 marks** will be counted.

Assignment #	Due Date[&]	Weeks Covered*	Chapters Covered
1	Friday September 12th	1-2	3.1-3.4
2	Friday September 19th	3	3.5, 4.1, 4.2
3	Friday September 26th	4	4.3, 4.4
4	Friday October 3rd	5	4.5, 4.6
5	Friday October 17th	6-7	5.1-5.6
6	Friday October 24th	8	6.1, 6.2
7	Friday October 31st	9	6.3-6.5
8	Friday November 21st	10-11	7.1-7.4
9	Friday November 28th	12	7.5, 7.6, 14.1, 14.2
10	Friday December 5th	13	14.4-14.6

[&]11:59 pm on day noted **approximate*

Mid-Term Tests

There will be two 70-minute tests held during class time on the following dates, and will focus on the material indicated:

Test #1: Thursday, October 9 (Chapters 3 and 4)

Test #2: Thursday, November 6 (Chapters 5 and 6)

You must write the test with your registered class section. Writing a test with a different class section will be considered an act of academic misconduct and will be subject to disciplinary action.

Test questions will incorporate skills and knowledge from the learning objectives outlined in Prerequisite Knowledge (see Course Material Overview section below).

All tests will consist of multiple-choice questions, with a combination of theory questions and calculations.

What can I bring with me?

You will be provided with the data sheet that is posted on UM Learn in Content/Course Information. You may also make your own 8.5" × 11" double-sided study sheet to use during the exam but *accessing other materials, resources, or help during tests is considered academic misconduct.*

You will need to bring pencils, pens, an eraser, a calculator, and your Student I.D. to the tests and strictly follow the instructions provided.

Graphing and programmable calculators are allowed provided additional notes have not been programmed in the calculator.

What are the tests worth?

Each test is worth 15%, with an overall mark of 30% for the three tests.

Do I *have to* write the tests???

The writing of the tests is **mandatory**. If you miss a test, you must fill out the form for missed tests that will be posted on UM Learn and provide documentation within 48-hours of the missed test. Otherwise, you will receive a mark of zero for the missed test.

There will be no makeup tests. If your documentation is accepted for a missed test, the 15% value of the test will be transferred to the value of the final exam.

If your mark on the final exam is better that your overall mark for the tests, then your exam mark replaces the overall test mark.

Final Examination

When: The final exam will last **3 hours** on a date that will be posted by the Registrar's Office later in the term.

What: The final exam will cover all course material in a balanced manner, and questions will incorporate skills and knowledge from the learning objectives outlined in Prerequisite Knowledge (see Course Material Overview section below).

How: All tests will consist of multiple-choice questions, with a combination of theory questions and calculations. You will be provided with the data sheet that is posted on UM Learn in Content/Course Information and, as for the mid-term tests, you may also make your own 8.5×11" double-sided study sheet to bring to and use during the exam. *Access to any other materials, resources, or help during tests is considered academic misconduct*.

You will need to bring pencils, pens, an eraser, a calculator, and your Student I.D. to the tests and **strictly follow the instructions provided**. Graphing and programmable calculators are allowed provided additional notes have not been programmed in the calculator.

Anything Else? Writing of the final exam is **mandatory**. Students who have conflicting scheduled exams should contact their faculty's academic advisors as soon as possible. If you miss the final exam ***you must contact your home faculty within 48 hours***. Your home faculty will decide whether or not to grant you the privilege of writing the deferred exam.

The University's general policies for final examination and grades can be found at:

https://umanitoba.ca/governance/governing-documents-academic#final-examinations-and-final-grades

Course Material Overview

Prerequisite Knowledge **self-study**

This is important! Read this section carefully!!

CHEM 1100, later Chemistry courses, and other Science-based courses all **build on concepts covered in high school chemistry courses** or their equivalents (e.g. CHEM 1018).

You are expected to have mastery of this material **which will not be covered explicitly in lectures**. It is strongly recommended that you review and practice this material, which will be covered in assignment work, on term tests, and on the final exam.

The following is the list of learning objectives you are responsible for, along with the textbook sections or other learning resources where they are covered:

- Recognize **elemental symbols** and **names** of the main-group elements in periods 1 – 6, the transition elements in period 4, and Ag, Cd, Au, Hg, and U (section 1.1).
- Distinguish between **chemical** and **physical** properties (section 1.2).
- Recognize the **SI units** commonly used in chemistry and perform **unit conversions** (section 1.2).
- Distinguish between **accuracy** and **precision** (section 1.2, appendix B).
- Know how **scientific notation** and **SI prefixes** are used to indicate magnitude of numbers (section 1.2 and appendix A).
- Identify **significant figures** and apply them correctly in calculations involving addition/subtraction and multiplication/division (section 1.2, appendix B).
- Apply general problem-solving strategies for solving chemical problems, including **dimensional analysis** (section 1.3).
- **Convert** between mass, volume, density and concentration for gas, liquids, solids, and solutions (sections 1.3, 1.6, 2.2, 2.6)
- Understand **Avogadro's number** and the concept of **molar mass**, and convert between mass, moles, and numbers of particles (sections 1.4 - 1.5).
- Interpret and **draw** organic molecules using **line (Lewis) structures** (section 1.5).
- Have a molecular-level understanding of **aqueous solutions** of **molecular** and **ionic** compounds (section 1.6).
- Calculate the **concentration of solutions** prepared by adding pure solutes to water, and via dilution (section 1.6).
- Write and **balance** chemical equations (section 1.7).
- Carry out **stoichiometry** calculations and calculate stoichiometric yields through the determination of the **limiting reactant** (sections 1.8 – 1.10, 2.4).
- Understand **gas pressure** and express pressure in various units (section 2.1).
- Know the interrelationships between volume, pressure, moles, and temperature of gases, all of which are incorporated in the **Ideal Gas Law** (section 2.2).
- Know the relationship between the **total pressure of a gas mixture** and the **partial pressures** and **mole fractions** of the gas components - and be able to use this in relevant chemical calculations (section 2.3).
- Understand what is meant by an **"ideal gas"** (section 2.5).
- Be able to name / draw inorganic compounds; online learning resources:
    - 7.6: The Stock System of Nomenclature - Chemistry LibreTexts
    - 7.7: Naming Binary Ionic Compounds - Chemistry LibreTexts
    - 7.8: Formulas for Binary Ionic Compounds - Chemistry LibreTexts
    - 7.10: Ternary Ionic Compounds: Naming and Formulas - Chemistry LibreTexts
    - 7.13: Bases: Naming and Formulas - Chemistry LibreTexts
- Be able to name and draw binary molecular compounds and acids; online learning resources:
    - 7.11: Binary Molecular Compounds: Naming and Formulas - Chemistry LibreTexts
    - 7.12: Acids - Naming and Formulas - Chemistry LibreTexts

CHEM 1100 Course Material

Part 1: Thermochemistry (Hopefully) Covered by September 18th

Chapter 3: Energy and its Conservation, sections 3.1 – 3.6

Learning objectives

- Recognize the types of energy of interest to chemists.
- Understand the first law of thermodynamics and the concepts of heat and work.
- Understand the origins of energy changes in chemical reactions.
- Apply the principles of calorimetry to determine energy changes in a chemical reaction.
- Understand and calculate enthalpy and internal energy.

Part 2: Atoms and the Periodic Table (Hopefully) Covered by October 18th

Chapter 4: Atoms and Light, sections 4.1 – 4.7

Learning objectives

- Understand some of the fundamental aspects of atoms.
- Understand some of the fundamental aspects of light.
- Explain the origins of atomic spectra and relate electron energies in the hydrogen atom to its emission spectrum.
- Describe properties of free electrons and those in atoms or molecules.
- Write valid sets of quantum numbers for a given set of orbitals.
- Recognize shapes of *s*, *p*, *d*, and *f* orbitals.
- Understand the chemistry of the greenhouse effect.

Chapter 5: Electronic Structure and Periodic Properties, sections 5.1 – 5.6

Learning objectives

- Explain the effects of nuclear charge and screening on the energies of electrons.
- Understand the relationships between the structure of the periodic table and electron configurations.
- Use the Pauli exclusion principle, Hund's rule, and the orbital filling order to predict electron configurations of atoms and ions.
- Relate trends in atomic radius, ionization energy, and electron affinity to nuclear charge and electron configuration.
- Understand why ionic compounds exist and the energetics of their formation.
- Understand the periodic trends in ionic charge and recognize some of the common polyatomic ions (see table of complex ions on UM Learn in Content/Course Information).

Part 3: Chemical Bonding (Hopefully) Covered by November 20th

Chapter 6: Fundamentals of Chemical Bonding, sections 6.1 – 6.5

Learning objectives

- Use the concept of electronegativity to determine the polarity of a chemical bond.
- Draw optimal Lewis structures of covalent compounds, including resonance structures.
- Use the VSEPR model to predict the shapes of molecules with steric numbers 2, 3, 5, and 6.
- Understand the factors that influence bond angles, lengths, and energies.

Chapter 7: Theories of Chemical Bonding, sections 7.1 – 7.7

Learning objectives

- Use the orbital overlap model to explain the bonding in simple molecules.
- Assign the correct hybrid orbitals used by each inner atom in a molecule and the molecular geometry that results.
- Describe the σ and π bonding systems in multiple bonds.
- Use molecular orbital theory to calculate a bond order, predict magnetic properties of a molecule, and explain trends in bond length and energy.
- Describe the bonding in three-atom π and extended π systems.
- Use band theory to distinguish between conductors, semiconductors, and insulators.

Part 4: Chemical Equilibrium (*Definitely*) Covered by December 4th

Chapter 14: Principles of Chemical Equilibrium, sections 14.1 – 14.2, 14.4 – 14.6

Learning objectives

- Explain the dynamic nature of equilibrium in terms of reversibility.
- Understand some of the properties of equilibrium constants.
- Relate the equilibrium position to thermodynamic quantities.
- Predict the effects on the equilibrium position of changing concentrations or temperature.
- Solve quantitative equilibrium problems.
- Perform equilibrium calculations on reactions in aqueous solution.

How to succeed in your science courses… in a few short pages!

The Faculty of Science is committed to delivering the high-quality education our students have come to expect. We also want to ensure that you set yourself up for success. We want you to succeed!

1. Registration revision period: Use the registration revision period to evaluate course syllabus. During the registration revision period you will be able to drop or add courses without any financial consequence. Speak directly with instructors if you have any questions specific to their course.

2. Evaluate workload: Take time to consider the workload associated with the course schedule you are planning. Be realistic about other commitments and distractions that are part of everyday life and make your course selection decisions accordingly. Please consider watching this presentation from the Academic Learning Centre for Managing Your Time Effectively. If you want to discuss anything, talk to an Academic advisor in your faculty.

3. Commitment to study: For an average course, you should aim to commit at least three hours of studying for every hour of lecture. Make sure you keep up with studying on a consistent basis.

4. Reach out for help: If you experience issues learning the course material, reach out to your instructor, teaching assistants, supplemental instruction leaders or Academic Learning Centre for the course as soon as possible. Most content builds on previous content and deficiencies in understanding will cascade issues throughout the course. For questions about your degree program or if life stresses hinder your academic performance, contact your faculty's academic advisors immediately.

5. Learn efficiently, learn to take notes: During the pandemic, many lectures were delivered asynchronously so students had a chance to review lecture videos when they did not catch something during the lecture. Students in lectures delivered in-person will not have the luxury of rewatching a live lecture. Therefore, you may want to review some General Note-Taking Tips offered by the Academic Learning Centre which can help you learn efficiently.

University of Manitoba policies

As a student at the University of Manitoba (UM) you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the University's policies, procedures, and regulations specific to your faculty, college or school.

The UM website's governing documents is one important source of information, in particular the Academic and Students sections. The Student Advocacy office can also help you understand policies and procedures; find their information in the UM Learner supports section below.

Academic Calendar

The Academic Calendar is the University's official publication containing course descriptions, program, and graduation requirements, as well as UM and faculty or school-specific rules, regulations, and policies. Familiarize yourself with the sections of university policies and procedures and general academic regulations.

Learner support

Below you will find a select list of important supports for learners at the UM, both academic supports and otherwise. For a complete listing of all learner supports at the University of Manitoba, visit the student supports website.

Academic advising

Contact an academic advisor for support with degree planning and questions about your academic program and regulations.

Academic Learning Centre (ALC)

The Academic Learning Centre offers one-to-one tutoring, groups study sessions and workshops, as well as video and tip-sheet resources to help you throughout your academic program. All Academic Learning Centre programing, supports and services are free for UM students.

Make an appointment for **free one-to-one tutoring**. **Content tutors** (over 90 UM courses) can help you understand concepts and learn problem-solving strategies. **Study skills tutors** can help you improve your skills such as time management and goal setting, reading, and note-taking, as well as learning and test-taking strategies. **Writing tutors** can give you feedback on your academic writing, whether you are just getting started on a written assignment or already have a draft. **English as an additional language** specialist, Antoanela Denchuk, is available for one-to-one tutoring to help you improve your English-language academic writing skills. Use the drop-down menu, read the tutor biographies, and make an appointment for tutoring on the Academic Learning Centre schedule.

Attend **Supplemental Instruction (SI)** sessions in historically difficult courses (including chemistry, engineering, and computer science). These free weekly review sessions are facilitated by a peer mentor who has previously taken the course and provide an opportunity to discuss course content, ask questions, compare notes, solve practice problems, and develop study strategies. See online for a list of SI courses and meeting times.

Register for an **academic success workshop**, where you can learn strategies to improve your writing and studying. More information on topics, dates and registration are found online.

Access the Academic Learning Centre's collection of **videos and tip sheets** to help you with many of the academic tasks you will encounter in university.

Contact the Academic Learning Centre by calling 204-480-1481 or emailing academic_learning@umanitoba.ca. Bannatyne students can contact the Bannatyne Student Services office at 204-272-3190.

University of Manitoba Libraries

Research begins at UM Libraries. Learn at the Libraries is a great place to start, with information for students on academic writing, how to search the library, evaluating resources and writing citations. As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about locating appropriate resources or managing citations and will address any other concerns you may have regarding the research process. Liaisons can be contacted by email or phone and are also available to meet with you online. When working remotely, students can also receive help online through Ask Us! chat. For further detail about the libraries' services and collections, visit the Libraries' website.

Basic needs

It can be difficult to learn and succeed in courses when you are struggling to meet your or your family's basic needs. Several UM and community resources are listed below if you would benefit from support with regards to housing, food, finances, and/or childcare:

- Housing
  - UM Housing
  - Manitoba Residential Tenancies Branch
- Food
  - U of M Food Bank
  - Food Matters Manitoba
- Finances
  - UM Financial Aid and Awards
  - Manitoba Student Aid
- Childcare
  - UM Child Care
  - Manitoba Child Care Subsidy
  - Manitoba Child Care Association

English Language Centre

The English Language Centre (ELC) provides courses, tests, accommodations, and individual support to students whose first language is not English to support academic success and participation in the UM community.

Health support

Physical, mental, emotional, and spiritual health and wellness play a critical role in student success. See all of UM's resource on their Student Health and Wellness website and make note of several specific UM and community supports listed below.

Mental health support

Winnipeg Urgent Physical and Mental Health Care

If you are an adult experiencing a mental health or psychosocial crisis, contact the Klinic Community Health 24/7 crisis line at 204-786-8686, visit the Crisis Response Centre located at 817 Bannatyne Avenue, or contact the Mobile Crisis Service at 204-940-1781.

To speak with a nurse for guidance on what health-care path to take for the issue you are facing or for general information about health resources available in Manitoba, contact Health Links at 1-888-315-9257 (toll free).

If you need urgent medical care, visit the Winnipeg Regional Health Authority's Emergency Department & Urgent Care Wait Times webpage for a list of locations and current wait times.

Student Counselling Centre (SCC)

The Student Counselling Centre provides free counselling and mental health support to UM, English Language Centre, and International College of Manitoba (ICM) students. We are open year-round, Monday through Friday from 8:30 a.m. to 4:30 p.m. Our commitment is to offer a support service to every student who contacts us.

Visit the SCC's for urgent help webpage or the urgent care resources listed above if you require immediate support.

Visit the SCC's our Services webpage for more information on accessing a variety of services including individual counselling, counselling workshops and groups, support resources, and learning disability assessment services.

The SCC is at 474 UMSU University Centre (Fort Garry Campus).

Student Wellness Centre

Students often juggle multiple demands, and we recognize that it can be difficult to find balance. For any changes you want to make to your health and wellness, the Student Wellness Centre at the UM would like to support you in your journey. We are here to help you take control of your own health and make your own decisions. We are a judgment-free space and we avoid labels whenever possible. For more information, please visit the Student Wellness Centre website.
162 Extended Education, Fort Garry Campus
(204) 474-6740

Spiritual Care and Multifaith Centre

Spiritual care services are available to all, whether you identify as spiritual, atheist, religious or agnostic. Spiritual Services also offer specific denominational support for certain religious groups and by Indigenous Elders-in-Residence.

Case Management Office

Contact the Case Management Office if you are concerned about yourself or another student and do not know where to turn. Case Management helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.
Student Support Intake Assistant Case Management | University of Manitoba
520 University Centre, Fort Garry Campus
(204) 474-7423

University Health Service (UHS)

Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.
University Health Service University Health Service | University of Manitoba
104 University Centre, Fort Garry Campus
(204) 474-8411 (Business hours or after hours/urgent calls)

Health And Safety

The UM is committed to maintaining a safe learning environment for all students, faculty, and staff. Please stay home when you are feeling unwell.

Sexual violence support and education

Sexual violence affects people of all ages, sexual orientations, genders, gender identities, abilities, and relationship statuses. At UM, we are committed to ensuring a respectful work and learning environment for all. We want to build a safe and inclusive campus community where survivors of sexual violence know they can receive the supports they need to succeed, both academically and personally.

The Sexual Violence Resource Centre, located at 537 UMSU University Centre (Fort Garry campus) provides support, resources, information and referral services for any student, faculty or staff member who has been affected by sexual violence.

Indigenous students

Staff, faculty, and Elders are well-equipped to ensure your university experience is as beneficial, accessible, and successful as possible. Visit the Indigenous student experience website for more information on the supports and services available.

International students

The transition to a new country and a new academic system can be both exciting and overwhelming. The International Centre (IC) is here to help you settle into life at UM. Visit the international students website for more information.

Academic accommodations

Students who have, or think they may have, a disability (e.g., mental illness, learning, medical, hearing, injury-related, visual) are encouraged to contact Student Accessibility Services to arrange a confidential consultation. Instructors are notified by Student Accessibility Services what accommodations their registered students require which will help the instructor determine fair, feasible and reasonable academic accommodations without compromising academic standards. This takes time and planning, so reach out at the start of term.

SAS students can write their exams and tests in spaces organized by the SAS Exam Centre however they must register with the SAS Exam Centre a few weeks in advance. Please be sure to do so to receive the accommodations.

Medical notes and other documentation

The Self-Declaration for Brief and Temporary Absences Procedure and Policy is effective as of September 1, 2022 and therefore students will not be required to present medical or other documentation for absences due to extenuating circumstances of 120 hours or less, however the self-declaration form for brief or temporary absence must be completed and submitted to the instructor in lieu of the documentation. The Self-Declaration form is meant to minimize costs to students and unnecessary use of public health resources for obtaining a medical note for legitimate circumstances.
Please note that further documentation may be requested from students who claim multiple temporary absences or absences for more than 120 hours.

Short-term academic accommodations (up to 120 consecutive hours absences)

Students who miss a lab or assessment due to an extenuating brief or temporary absence should complete a self-declaration of brief absence form and submit it to their instructor **within 48 hours of the end of the brief absence**. The instructor will discuss with the student how the missed work can be made up.

- Students absent for **over 120 hours** because of medical, compassionate, University scholastic, University athletic or religious event will require official documentation to explain the absence. Students should reach out to instructors early if absences are anticipated.

Long-term academic accommodations

Students with long-term academic accommodations are usually registered with Student Accessibility Services. The long-term academic accommodations are usually to accommodate long term physical or mental illness and accommodations can be in the form of notetaking, interpreting, assistive technology, and assessment accommodations.

VERY IMPORTANT NOTE REGARDING THE SELF-DECLARATION FORM

Writing of tests and exams is stressful for most students. Therefore, to reduce the stress for those assessments, you want to learn to manage your stress and prepare and study effectively. Please visit the Academic Learning Centre and Student health and wellness for help.

Students should not be using the Self-Declaration form for strategizing (for example, missing a lab in the afternoon and then writing a midterm in the evening). ***Please be aware that submitting a Self-Declaration form either dishonestly or for a non-valid reason is the same as submitting any other fraudulent (false) document which may result in disciplinary action under the UM Student Discipline Bylaw.***

To be clear, here are some examples of:

Non-valid reasons

- Feeling unprepared to write the assessment
- Attending a personal or family event (e.g., vacation, wedding)
- Optional travel
- Technological difficulties
- Competitions or events, related to personal interests (choir, acting, pageants, exhibitions)
- Employment-related commitments
- Wanting to strategize the timing of the writing of the assessment
- Missing a lecture or lab to have more time to study for an upcoming test or exam

Valid reasons

- Sudden illness or injury on the day of an exam
- Unexpected compassionate circumstances
- Known conflicts of religious observance
- Bereavement or loss of a loved one
- Participation in an inter-university, provincial, inter-provincial, national, or international scholastic or athletic event

Final exams and deferred exams – Very Important!

If you have conflicting scheduled exams, you must contact your faculty/unit's academic advisors as soon as possible. If you miss your exam due to extenuating, brief or temporary circumstances listed in the Self-Declaration for Brief and Temporary Student Absences Policy, you can apply for a deferred exam.

Faculty of Science students who have **deferred more than two terms of final exams** will be required to provide additional documentation (for example, medical note) beyond the self-declaration of brief absence form. Students who are not registered in the Faculty of Science should consult their faculty's/unit's policies on deferred exams. Providing fraudulent documents in support of a deferred exam application is a breach of the University's academic integrity policy and thus the student will be subject to investigation according to the Student Discipline Bylaw. In cases of re-deferral requests or having deferred more than two terms of final exams, failure to provide supporting document with the necessary and relevant details will result in a final exam grade of 0. Students feeling ill and who may not be able to write their exam, should apply to write a deferred exam and not attempt to write their exam.

Deferred final exams are a privilege and are not always granted. Students are expected to be available to write the deferred exam within 30 days of the regular exam. Students missing the deferred exam will be required to apply for a re-deferred exam which is typically held the next time the course is offered (that is, missing the Winter 2025 deferred exam may mean that the next opportunity to write will be Winter 2026). The content and structure of the deferred exam may be different from that written in the regular examination period. Students have a **responsibility** to check on the structure and expectations with the course instructor.

For students writing re-deferred exams, course instructors are not responsible for providing course content notes or answering content questions.

Missed lecture notes

Students missing lecture notes because of absences are responsible for obtaining the missed content on their own accord. Contact a classmate or the course instructor for their notes but please be aware the instructor is not obliged to create notes for students because of absences.

Voluntary Withdrawal (VW) policies

Voluntary withdrawal (VW) is a way for students to leave a class without academic penalty once the Registration Revision Period has ended. If you opt to voluntarily withdraw from a course, the course you have withdrawn from will be listed on your transcript; however, "VW" will appear in lieu of a grade. If you do not drop a course before the VW deadline, you will receive a final grade in the course on your transcript.

Students have the opportunity to voluntarily withdraw (VW) from this class up to March 19 (in the event of date discrepancies, please follow the dates on the important dates and deadlines webpage). By then, you will have received feedback to allow you to assess your progress and determine if you are achieving the grade you are aiming for in this course. If you are unlikely to be successful in the course, or not achieving the grade that you are aiming for, you should consider a VW from the course. In advance of the VW date, you should contact your instructor to review your progress in more detail, or you may discuss the VW option with a faculty academic advisor.

Please note that there are separate deadlines for dropping a course early in a term during the Registration Revision Period. Dropping a course means you are removing that course from your schedule, will not be charged tuition fees for that course and the course will not appear on your transcript.

The Registrar's Office website, withdraw from a course, includes more information on the different ways in which you can withdraw from a course and important dates and deadlines to do so.

Professional conduct

Students in the University community can freely express their thoughts, opinions, and beliefs however they must observe the respectful work and learning environment policy and treat each other, staff, and faculty with respect. Students who are alleged to have breached the Respectful Work and Learning Environment Policy will be investigated and disciplined according to the Student Non-Academic Misconduct and Concerning Behaviour Procedure.

Academic integrity

Academic integrity is taking responsibility for and being honest with your work and respecting the work of others. Since you are a member of the university community, we want you to learn what that responsibility and honesty entails and how we respect the work of others.

The Faculty of Science continues to uphold high standards of academic integrity. We know that you, our students, support us in this and we count on every one of you to do your part. We expect all students to strictly adhere to instructions from their professors regarding what resources can and cannot be used for assessments, to follow other rules the professors wish to set and to adhere to the academic conduct standards of the University and Faculty.

To aid professors in assuring that all forms of assessments have been administered fairly, the University can electronically monitor all tests, quizzes, and examinations, included, but not limited to overseeing chatrooms, relevant predatory websites and, in so doing, we will analyze scholastic evidence of individual exams.

Students who transgress academic integrity rules will be investigated and disciplined (if justified) according to the student discipline by-law and student academic misconduct procedure.

The list of suggested minimum penalties assessed by the Faculty of Science for acts of academic misconduct is available on the Faculty of Science website.

Artificial Intelligence

Many of us have heard of, and perhaps even used, artificial intelligence tools like ChatGPT. Course instructors can decide whether generative artificial intelligence tools can be used in their courses. Artificial intelligence tools are not limited to generative artificial intelligence chatbots (for example ChatGPT) or image generators (for example DALL-E) but also writing and paraphrasing tools (for example Quillbot and Grammarly). Students who are unclear whether AI tools can be used in the course, it is the student's responsibility to clarify with the instructor.

Copyright

All students are required to respect copyright as per Canada's Copyright Act. Staff and students play a key role in the University's copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the UM community.

Please respect copyright. We will use copyrighted content in this course. No audio or video recording of the lectures is allowed in any format, openly or surreptitiously, in whole or in part without permission from the instructor. University guidelines state that copyrighted works, including those created by the course instructor, are made available for private study and research, and must not be distributed in any format without permission. Since it is illegal, do not upload copyrighted works to a learning management system (such as UM Learn) or any website, unless an exception to the Copyright Act applies or written permission has been confirmed.

For more information, visit the University's Copyright Office website.

Your rights and responsibilities

As a student of the UM you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the University's policies, procedures, and regulations specific to your faculty, college or school.

The Academic Calendar is one important source of information. View the sections of University Policies and Procedures and General Academic Regulations.

While all the information in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final **grade appeals**. Note that you have the right to access your final examination scripts. View the Registrar's Office website for more information including appeal deadline dates and the appeal form.

- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the **academic integrity** regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support. View the **student academic misconduct** procedure for more information.

- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected to conduct yourself in an appropriate respectful manner. Policies governing behavior include the: respectful work and learning environment, student discipline and, violent or threatening behaviour.

- If you experience **sexual violence** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **sexual violence** policy may be found at: https://umanitoba.ca/governance/governing-documents/governing-documents-university-community#sexual-violence. More information and resources can be found by reviewing the sexual violence site Sexual violence support and education.

For information about rights and responsibilities regarding **intellectual property** please view the policy.

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty, college or school website.

Contact an **academic advisor** within **your** registered faculty, college or school for questions about your academic program and regulations.

Student Advocacy
Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.
Student Advocacy
520 University Centre
204 474 7423
student_advocacy@umanitoba.ca

Phew! You made it to the end! Good for you! Seriously, great work! ☺