# University of Manitoba Department of Statistics

## DATA 2010—Tools and Techniques for Data Science

## Winter Term 2023

#### **Course Details**

Course Number & Title: DATA 2010—Tools and Techniques for Data Science

Section & CRN: Section A01, CRN: 21249

Course Schedule: Monday/Wednesday/Friday, 1:30 to 2:20 pm,

at Arms 111

Lab Schedule: Monday, 4:30 to 5:45 pm,

Prerequisites: MATH 1240 (Elementary Discrete Mathematics)
MATH 1300 or MATH 1220 (Linear Algebra)

one of MATH 1700, MATH 1710, or MATH 1232 (Calculus 2)

Co-requisites: STAT 2150 (Statistics and Computing) and

COMP 2140 (Data Structures and Algorithms)

## **Instructor Contact Information**

Instructor: Ashani Wickramasinghe

Office Location: 331 Machray Hall

Email: Ashani.Wickramasinghe@umanitoba.ca

Office Hours: Friday/Wednesday 3:00 to 4:00 pm (or By appointment).

## Student Learning Objectives

This course aims to provide students with an introduction to the field of data science with an emphasis on the fundamental tools and techniques that underlie the field. Throughout the course, students will:

- Become proficient in R, to the level that they can analyze data using the tools from this class.
- Be able to describe and analyze data through visualization and simple statistical procedures.
- Be introduced to statistical thinking and be able to think critically about variation and biases.

At the end of the course, students will be able to analyze data using R.

#### Textbook and Other Materials

**Textbook:** The following textbooks are good references, but they are not required:

- Skiena, The Data Science Design Manual. Springer (2017).
  - Freely accessible through the University of Manitoba Library.
- Kim & Ismay, Statistical Inference Via Data Science: A ModernDive Into R and the Tidyverse. CRC Press (2019).
  - An online version is available here: https://moderndive.com/

Course Material: Lecture slides and supplementary materials will all be made available through UM Learn.

#### Course Assessment

Labs: The

There will be five (5) labs during the term, worth a total of 10% of the final grade. During the first 20 minutes of the lab, there will be a short cording exercise that you need to do with the help of your TA. After that, there will be a 30 minutes quiz, and you need to submit your answer scripts through the crowdmark. If you can, you should bring a laptop to your labs. If you do not have access to a laptop, you may work in a group with a classmate who does. Only the best 4 of 5 lab work grades will be considered, so you can miss one lab with no penalty.

**Assignments:** 

There will be three (3) assignments during the term, worth a total of 20% of the final grade.

Students are encouraged to form study groups to discuss assignment questions but not the answers. Each student must submit his or her own individual written work. Copying, in whole or in part, the work of another will not be tolerated and will result in disciplinary action (see Academic Integrity section). Assignments should be handed in electronically via UM Learn on the due date.

Late submissions will be accepted, but 5% will be deducted from your assignment mark for each 24h period following the submission deadline (e.g. for an assignment worth 10% of the final and submitted 2 days after the deadline, the penalty will correspond to 1% of the final mark).

Course Project:

There will be a group project worth 30% of the final mark.

Final Exam:

There will be one (1) final exam in this course. It will be worth 40% of the

final grade.

Grading Timeline:

Work will be graded and returned within two weeks of submission.

## Course Evaluation and Grading Scheme

**Final Mark:** The final mark for the course will be obtained according to the following rule:

Labs $(5)$	10%
Assignments (3)	20%
Course Project	30%
Final Exam	40%

Letter Grade: The following cutoffs will be used when assigning letter grades:

Letter Grade	Mark out of 100
A+	[90 - 100]
A	[80 - 90)
B+	[75 - 80)
В	[70 - 75)
$\mathrm{C}+$	[65 - 70)
$\mathbf{C}$	[60 - 65)
D	[50 - 60)
$\mathbf{F}$	below 50

However, I might elect to use lower thresholds for some letter grades if I think they are more appropriate (i.e. use a smaller lower bound for the ranges above). I will not use higher thresholds.

## Outline of Covered Topics

The course is expected to cover the following topics, as time permits:

- 1. Data cleaning and wrangling
- 2. Correlation, distributions, significance
- 3. Data visualization
- 4. Scores and rankings
- 5. Linear regression
- 6. Introduction to Machine Learning

#### Important Dates

The following dates are important to how the course will progress throughout the term.

Date	Information
Jan 9	First lecture
Feb 20	Louis Riel Day ( <b>No Lectures</b> )
Feb 21-24	Winter Term break (No Lectures)
Mar 22	Last day to VW the course
Apr 7	Good Friday ( <b>No Lectures</b> )
Apr 12	Last lecture
Apr 14-28	Final Examination Period

The date for the midterm tests is tentative (and subject to change at my discretion and/or based on the learning needs of the students). Changes are subject to Section 2.8 of the ROASS Procedure.

#### Tentative Schedule

The following weekly schedule is tentative and may be adjusted as needed during the semester.

Week	Date	Topic	Labs	Assignments
1	Jan 9	Introduction	No Lab	
2	Jan 16	Review of Math. Preliminaries		
3	Jan 23	Assembling datasets		
4	Jan 30	Data cleaning	Lab 1	Assignment 1
5	Feb 6	Correlation, distributions, significance		
6	Feb 13	Data visualization		
	Feb 20	Winter term break		
7	Feb 27	Data visualization	Lab 2	Assignment 2
8	Mar 6	Scores and Rankings		
9	Mar 13	Introduction to Math. and Stat. models	Lab 3	
10	Mar 20	Linear regression	Lab 4	Assignment 3
11	Mar 27	Linear regression		
12	Apr 3	Intro. Machine Learning	Lab 5	
13	Apr 10	Intro. Machine Learning		

#### **Class Communications**

The University requires all students to activate an official U of M email account, which should be used for all communications between yourself and the university (including all your instructors). All these email communications should comply with the University's policy on electronic communication with students, which can be found at: http://umanitoba.ca/admin/governance/governing\_documents/community/electronic\_communication\_with\_students\_policy.html

Questions of an administrative nature should be directed to me via email. Questions related to the course content should be directed to the Discussion Groups on UM Learn (which I will regularly visit). This is in order to provide an opportunity for learning and collaboration between the students.

## Copyrights

We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission.

More details are available online at https://umanitoba.ca/copyright/.

### Student Accessibility Services

If you are a student with a disability, please contact Student Accessibility Services (SAS) for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

#### ROASS Schedule A

Schedule "A" of the Responsibilities of Academic Staff with regards to Students (ROASS) policies of the University of Manitoba lists resources and policies for students. It is important that you familiarize yourself with these resources and policies. This document is available from the Department of Statistics web page at: https://sci.umanitoba.ca/statistics/.

### University of Manitoba Acknowledgement of Traditional Territories

The University of Manitoba campuses are located on original lands of Anishinaabeg, Cree, Oji-Cree, Dakota, and Dene peoples, and on the homeland of the Métis Nation.

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.

### **Appendix For Winter 2023 Course Syllabi**

### How to succeed in your science courses?

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. <u>Registration Revision Period</u>: Use the <u>Registration Revision Period</u> to evaluate course syllabus. During the registration revision period you will be able to drop/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 Academic advising.
- #3. <u>Commitment to Study:</u> 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. <u>Learn Efficiently</u>, <u>Learn to Take Notes</u>: 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. Lectures are delivered in-person this fall term therefore students will not have the luxury of rewatching a live lecture. Therefore, you may want to review some <u>note-taking tips</u> offered by the <u>Academic Learning Centre</u> 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 policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The UM website's <u>Governing Documents</u> 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 <u>Academic Calendar</u> is the University's official publication containing course descriptions, program and graduation requirements, as well as UM and faculty/school-specific rules, regulations and policies. In particular, familiarize yourself with the sections 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 <a href="Student Supports website">Student Supports website</a>.

#### **Academic Advising**

Contact an <u>Academic Advisor</u> for support with degree planning and questions about your academic program and regulations.

## **Academic Learning Centre (ALC)**

The <u>Academic Learning Centre</u> 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 <u>free one-to-one tutoring</u>. 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 <u>Academic Learning Centre schedule</u>.

Attend <u>Supplemental Instruction (SI)</u> 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 <u>Academic Success Workshop</u>, 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 <u>videos and tip sheets</u> to help you with many of the academic tasks you'll encounter in university.

**Contact the Academic Learning Centre** by calling 204-480-1481 or emailing <a href="mailto:academic learning@umanitoba.ca">academic learning@umanitoba.ca</a>. Bannatyne students can contact the Bannatyne Student Services office at 204-272-3190.

### **University of Manitoba Libraries (UML)**

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' web site.

#### **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
  - o **UM Housing**
  - o Winnipeg Rental Network
  - o Manitoba Residential Tenancies Branch
  - o HOPE End Homelessness Winnipeg Services & Supports
- Food
  - o <u>U of M Food Bank</u>
  - o Food Matters Manitoba
- Finances
  - o UM Financial Aid and Awards
  - o Manitoba Student Aid
- Child Care
  - o UM Child Care
  - o Manitoba Child Care Subsidy
  - o Manitoba Child Care Association

## **English Language Centre**

The <u>English Language Centre (ELC)</u> provides courses, tests, accommodations and individual support to students whose first language is not English in order 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 <u>Health and Wellness</u> 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 <u>Health Links</u> at 1-888-315-9257 (toll free).

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

### **Student Counselling Centre (SCC)**

The <u>Student Counselling Centre</u> 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 am to 4:30 pm. Our commitment is to offer a support service to every student who contacts us.

Visit the SCC's <u>For Urgent Help</u> webpage or the urgent care resources listed above if you require immediate support.

Visit the SCC's <u>Our Services</u> 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 located is located at 474 UMSU University Centre (Fort Garry Campus).

#### **Health and Wellness Office**

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 Health and Wellness Office 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 <u>Health and Wellness Office</u> website.

Health and Wellness Educator <a href="https://umanitoba.ca/student/health-wellness/welcome-about.html">https://umanitoba.ca/student/health-wellness/welcome-about.html</a> <a href="https://umanitoba.ca/student/health-wellness/welcome-about.html">https://umanitoba.ca/student/health-wellness/welcome-about.html</a> <a href="https://welcome-about.html">https://welcome-about.html</a> <a href="https://welcome-about.ht

469 University Centre, Fort Garry Campus (204) 295-9032

## **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.

#### Student Support Case Management (SSCM)

Contact the <u>Student Support Case Management team</u> if you are concerned about yourself or another student and don't know where to turn. SSCM 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 <a href="http://umanitoba.ca/student/case-manager/index.html">http://umanitoba.ca/student/case-manager/index.html</a>
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 <a href="http://umanitoba.ca/student/health/">http://umanitoba.ca/student/health/</a>

104 University Centre, Fort Garry Campus

(204) 474-8411 (Business hours or after hours/urgent calls)

#### Live Well @ UofM

For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site: http://umanitoba.ca/student/livewell/index.html

#### **HEALTH AND SAFETY**

The UM is committed to maintaining a safe learning environment for all students, faculty, and staff. Should campus operations change because of health concerns related to the COVID-19 pandemic or other campus-wide emergency, it is possible that this course will move to a fully remote delivery format. Should the instructor be required to stay at home for an extended period and an alternate instructor not be available, the course may move temporarily to a remote delivery format.

## **Mask Wearing**

In a face-to-face environment, our commitment to safety requires students to observe all Covid guidelines set by the University (<a href="https://umanitoba.ca/coronavirus">https://umanitoba.ca/coronavirus</a>) While on campus and in class, you must wear masks as stipulated in current University policies, procedures, and guidelines. The University highly recommends the use of KN-95 masks; the minimum requirement is a ATSM Level 2 Medical mask. Both mask types are available at many locations on campus. Students who fail to comply are subject to disciplinary action in accordance with the <a href="https://www.students.nih.gov/students/bull/">Student Discipline Bylaw</a> and the <a href="https://www.students.nih.gov/students/">Non-Academic Misconduct</a> and <a href="https://www.students.nih.gov/students/">Concerning Behaviour Procedure</a>.

Instructors are told to follow the protocols specified in <u>COVID-19</u> information for staff, faculty, and <u>researchers</u> for non-compliance with masking. Students should not eat or drink during class time.

#### Illness

Remember: STAY HOME IF YOU HAVE SYMPTOMS OR ARE ILL. If you become ill, we highly recommend that you <u>self-isolate</u>; you should notify your instructor by email so you can develop a plan to complete the course learning outcomes while you are absent.

What to do if you become ill while at UM:

- 1. Leave the classroom, lab, or workspace immediately. Continue to wear your mask while leaving the premises and/or while waiting for transportation.
- 2. Perform hand hygiene (soap and water or hand sanitizer) and avoid contact with others and minimize contact with the physical environment.
- 3. Once at home, complete the MB self-assessment and follow the directions that are provided.
- 4. Inform your instructor(s) or, if in residence, the appropriate individual. The Instructor will discuss with you arrangements for extensions, deferrals or make-up assignments as required.
- 5. Please remain off-campus and all UM facilities until cleared to return in accordance with self-assessment, testing results, and UM recommended isolation procedures. Recommended transportation options (in order):
  - 1. Drive yourself home.
  - 2. Pick-up by family or friend remember to keep your mask on and to distance yourself as much as possible, and where possible, open a window to improve ventilation.
  - 3. Pickup by taxi/Uber:

Remain masked and perform hand hygiene before entering the vehicle.

- o Avoid touching the inside of the vehicle
- o Keep your mask on for the duration of the ride
- o Where possible, open a window to improve ventilation.

4. Winnipeg Transit buses – We recommend that you do not use Winnipeg Transit in this situation.

### **Sexual Violence Support and Education**

Sexual violence affects people of all ages, sexual orientations, genders, gender identities, abilities and relationship statuses. At the 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 <u>Sexual Violence Resource Centre</u>, 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 <u>Student Experience</u> 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 <u>International Students</u> 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 <a href="this form">this form</a> must be completed and submitted to the instructor in lieu of the documentation. <a href="Please note that further documentation may be requested from students who claim multiple temporary absences or absences for more than 120 hours.">than 120 hours.</a>

#### Short-Term Academic Accommodations (up to 120 consecutive hours absences)

As we emerge from the pandemic, the University still has the health and safety of its community at top of mind. Since your classes are held in-person, please make sure you follow the <u>University's COVID-19</u>

<u>Health and Safety Protocols</u>. Notably, exercise good hand hygiene, <u>stay home if you are ill</u> and you must wear a <u>mask</u> when attending lecture/labs and on campus.

- Students who miss a lab or assessment due to an extenuating brief or temporary absence should complete a <u>self-declaration for brief and temporary student absences form</u> 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 as a result 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.
- Personal vacations and work requirements are not considered acceptable absences.

### **Long-Term Academic Accommodations**

Students with long-term academic accommodations are usually registered with <u>Student Accessibility</u> <u>Services</u>. 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.

#### **Final Exams**

Students who have conflicting scheduled exams should contact their faculty's academic advisors as soon as possible. Students who miss their exam due to extenuating circumstances can apply for a deferred exam. Please note that the granting of a deferred exam is not necessarily guaranteed.

#### **Missed Lecture Notes**

Students missing lecture notes as a result 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 as a result 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, you will not be eligible for a refund and, if applicable, will still be required to pay any outstanding tuition fees for the course. On your transcript, the course you have withdrawn from will be listed; 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 22 (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. 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, <u>Withdraw from a Course</u>, 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 <u>Respectful Work and Learning Environment Policy</u> 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 <u>Student Non-Academic Misconduct and Concerning Behaviour Procedure</u>.

#### **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 will be electronically monitoring 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 <u>Student Discipline By-Law</u> and <u>Student Academic Misconduct Procedure</u>.

The list of suggested minimum penalties assessed by the Faculty of Science for acts of academic dishonesty is available on the <u>Faculty of Science website</u>.

#### **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, see the University's Copyright Office website at http://umanitoba.ca/copyright.

#### 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 policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The <u>Academic Calendar</u> is one important source of information. View the sections of *University Policies* and *Procedures* and *General Academic Regulations*.

While all of the information contained 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.
   See the Registrar's Office website for more information including appeal deadline dates and the
  appeal form <a href="http://umanitoba.ca/registrar/">http://umanitoba.ca/registrar/</a>
- 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
  <a href="http://umanitoba.ca/academicintegrity/">http://umanitoba.ca/academicintegrity/</a> 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 Assault** 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: <a href="https://umanitoba.ca/governance/governing-documents/governing-documents-university-community#sexual-violence">https://umanitoba.ca/governance/governing-documents/governing-documents-university-community#sexual-violence</a>. More information and resources can be found by reviewing the Sexual Assault site <a href="http://umanitoba.ca/student/sexual-assault/">http://umanitoba.ca/student/sexual-assault/</a>

For information about rights and responsibilities regarding **Intellectual Property** view the policy: <a href="https://umanitoba.ca/admin/governance/governing">https://umanitoba.ca/admin/governance/governing</a> documents/community/235.html

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site <a href="http://umanitoba.ca/faculties/">http://umanitoba.ca/faculties/</a>

Contact an **Academic Advisor** within **YOUR** registered faculty/college or school for questions about your academic program and regulations <a href="http://umanitoba.ca/academic-advisors/">http://umanitoba.ca/academic-advisors/</a>

### **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.

http://umanitoba.ca/student/advocacy/ 520 University Centre 204 474 7423 student\_advocacy@umanitoba.ca