Syllabus

FOOD 3010: Food Process I

(Winter 2023)
TABLE OF CONTENTS

COURSE DETAILS ................................................................................................................................................ 3
INSTRUCTOR CONTACT INFORMATION............................................................................................................... 3
COURSE DESCRIPTION ........................................................................................................................................ 4
COURSE GOALS .................................................................................................................................................. 4
COURSE LEARNING OBJECTIVES .......................................................................................................................... 4
TEXTBOOK, READINGS, AND COURSE MATERIALS ............................................................................................... 4
USING COPYRIGHTED MATERIAL ........................................................................................................................ 5
COURSE TECHNOLOGY ....................................................................................................................................... 5
EXPECTATIONS: I EXPECT YOU TO ....................................................................................................................... 5
EXPECTATIONS: YOU CAN EXPECT ME TO ........................................................................................................... 7
CLASS SCHEDULE AND COURSE EVALUATION ..................................................................................................... 7
LAB EXPECTATIONS ............................................................................................................................................ 9
LAB SCHEDULE .................................................................................................................................................. 10
GRADING .......................................................................................................................................................... 11
VOLUNTARY WITHDRAWAL ................................................................................................................................ 11
ASSIGNMENT DESCRIPTIONS ............................................................................................................................. 11
REFERENCING STYLE .......................................................................................................................................... 12
ASSIGNMENT FEEDBACK ................................................................................................................................... 12
ASSIGNMENT EXTENSION AND LATE SUBMISSION POLICY ................................................................................. 12
UNIVERSITY SUPPORT OFFICES & POLICIES ................................................................................................. 12
COURSE DETAILS

Course Title & Number: FOOD 3010 Food Process I

Number of Credit Hours: 3

Class Times & Days of Week: Monday, Wednesday, Friday: 1.30 pm – 2.20 pm
Lab Section: Wednesday 2.30 pm-5.25 pm

Location for classes/labs/tutorials: Lectures: Agriculture Building Room 134
Labs: Ellis Building Room 216 (Pilot Plant)
All labs and lectures are in-person for Winter 2023. If the Instructor is sick (ex: Covid infection), the classes will be either remote or conducted by a substitute instructor.

Pre-Requisites: Any MATH course at the 1000 level

Instructor Contact Information

Instructor(s) Name & Preferred Form of Address: Dr. Nandika Bandara
The Instructor will respond to any civil form of address such as first name, last name or Dr. etc

Office Location: Ellis 268 – During allocated office hours
RCFTR 103 – All other times

Office Hours or Availability: Monday 12.00 noon – 1.00 pm, Other times by mutually agreed appointment..

Office Phone No. 204-272-1547

Email: Nandika.Bandara@umanitoba.ca (preferred method of communication)
All emails should contain FOOD 3010 at the subject line.
The Instructor may respond to the emails outside of the regular working hours (8am-5pm), but not guaranteed. However, All emails will be answered within 24 hrs.

Contact: Email is the preferred method of communication. All emails will be answered within 24 hours. For urgent reasons, you can contact me by phone.
Course Description

U of M Course Calendar Description
The basic principles and practices of the major food processing and preservation techniques are covered. Emphasis is placed on heat transfer, thermal processing (canning), ultra-high temperature (UHT), aseptic processing, water activity, evaporation, drying, chilling, freezing, sanitation, and packaging. Also, poultry, egg, and fruit juice processing are presented. Critical issues in food regulations are introduced.

General Course Description
The fundamentals of current food processing techniques will be covered, emphasizing heat and mass transfer, thermal processing, water, and heat removal methods. The importance of water content (water activity), sanitation, and packaging on food preservation and the effects of processing parameters on product quality are also discussed. This course is a foundational course for the Food Science discipline. However, it fits into the broader nutrition science program, Biosystem Engineering, Agriculture Engineering, Animal Science, Plant Science, Agronomy, and most agricultural disciplines, in particular agri-food programs.

Course Goals

- To review the evolution of the current food processing techniques as well as laws and regulations.
- To recognize and understand the principles of current food processing techniques.
- To identify the importance of water content and some other parameters (e.g. pH, total soluble solids), sanitation, and packaging on food products' quality, safety, and shelf-life.
- To identify and clearly understand how raw material is converted to processed and palatable food (Farm to Fork Concept).

Course Learning Objectives
By the end of the course, the student should:

- Know the principles and current practices of processing techniques and the effects of processing parameters on product quality.
- Know the source and variability of raw food materials and their impact on food processing operations.
- Know the principles that make a food product safe for consumption.
- Know the properties and uses of various packaging materials.
- Know the major parameters that limit the shelf life of foods.
- Identify the conditions, including sanitation practices, under which the important pathogens and spoilage microorganisms are commonly inactivated, killed, or made harmless in foods.
- Be able to apply and incorporate the principles of Food Science in practical, real-world situations and problems.
- Apply critical thinking skills to new situations.
- Commit to the highest standards of professional integrity and ethical values.
- Work and/or interact with individuals from diverse cultures.

Textbook, Readings, and Course Materials

Required textbooks: No primary textbook is required.
Supplementary Books (which provide appropriate background material for the course):

Identify for the students what they need to read for class and where they can find it. Be aware of copyright laws when using readings.

Using Copyrighted Material

Please respect copyright. Copyrighted content used in this course is appropriately acknowledged and used according to copyright laws and University guidelines. Copyrighted works, including those created by the Instructor, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website such as Course Hero, 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/ or contact umcopyright@umanitoba.ca.

Course Technology

All course materials (PDF file of handouts and Lab manual) will be available to registered students through the UMLearn website (https://universityofmanitoba.desire2learn.com/d2l/login) prior to class. The general University of Manitoba policy is that all technology resources are to be used responsibly, efficiently, ethically, and legally.

The quizzes, mid-term and final exams will be arranged in person, but using UM Learn through your computers (Not a paper-based exam). Therefore, please make an advance plan to prepare a laptop with enough battery life (around 2.5 hrs) to write all the exams.

Expectations: I Expect You To

• Attend classes regularly and punctually.
• Attend the discussions actively and answer questions I may ask. Of course, I do not expect you to get the correct answer, but your participation would be very beneficial for the interests of all of us. Active class participation I worth 3% Marks from the final grade.
• Lab attendance is compulsory.
• Use your laptop or tablet in the class for course-related purposes but do not interrupt the others.
• Treat you with respect and would appreciate the same courtesy in return.
• Follow the policies around Class Communication, Academic Integrity, and Recording Class Lectures.
• Not to leave the class before it ends unless there is an emergency to which you must attend. Leaving a class before the end is disrespectful to your Instructor and disruptive towards your fellow students.
• Do not use your cell phone in class and turn it off or set it to vibration mode.
• I will treat you with respect and would appreciate the same courtesy in return. See Respectful Work and Learning Environment Policy.
• I expect you to follow these policies around Class Communication, Academic Integrity, and Recording Class Lectures.
• The policies and services students are expected to follow can be found here (Section 2.5 ROASS).

Class Communication:
You are required to obtain and use your University of Manitoba email account for all communication between yourself and the University. All communication must comply with the Electronic Communication with Student Policy: https://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html

Academic Integrity:
Each student in this course is expected to abide by the University of Manitoba Academic Integrity principles. Always remember to reference the work of others that you have used. Also, be advised that you are required to complete your assignments independently unless otherwise specified. If you are encouraged to work in a team, ensure that your project complies with the academic integrity regulations. You must do your own work during exams. Inappropriate collaborative behaviour and violation of other Academic Integrity principles will lead to serious disciplinary action. Visit the Academic Calendar, Student Advocacy, and Academic Integrity web pages for more information and support.

Specific course requirements for academic integrity for individual and group work:
I. Group projects are subject to the rules of academic dishonesty;
II. Group members must ensure that a group project adheres to the principles of academic integrity;
III. Students will work on assignments with provided lab data (for each group), but need to submit an individual lab report.
IV. All work should be completed independently unless otherwise specified.

Recording Class Lectures:
The Instructor and the University of Manitoba hold copyright over the course materials, presentations, and lectures that form part of this course. No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part, without permission from Dr. Nandika Bandara. Course materials (both paper and digital) are for the participant’s private study and research only.

Student Accessibility Services:
The University of Manitoba is committed to providing an accessible academic community. Students Accessibility Services (SAS) offers 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.

Student Accessibility Services
520 University Centre
Phone: (204) 474-7423
Email: Student_accessibility@umanitoba.ca

Expectations: You Can Expect Me To

In-class revisions and reviewing of coursework will be conducted as we complete different course sections.
I will be available 5 minutes before and after class time to discuss any questions or comments.
Email is our preferred method of communication, and you can expect to receive a response to any email within 24 hours on weekdays.

You can expect me to be on time and prepared for class. You can expect me to be available for consultation regularly.

If you have a question that cannot wait, you may send an email. I will be happy to answer it; however, make sure you are asking a relevant question (i.e. you could not find the answer or understand the material after reviewing the class notes or textbook). I will be glad to offer brief advice about the class material or an assignment.

All assignments handed in on time will be graded and returned within 2 weeks of the due date; late assignments will be graded as our time permits.

You can expect me to treat all of your questions and comments with respect and to take your concerns seriously. If you are having a problem, don't hesitate to talk to us about it. Don't wait until the last moment to realize that you need some marks to pass the course! I won't be able to help you at this point.

CLASS SCHEDULE AND COURSE EVALUATION

The schedule provided below is subject to change at the Instructor's discretion, but such changes are subject to Section 2.8 of the – ROASS - Procedure.

Complete Mark Allocation for Course (Students can expect to have marks for both quizzes, Midterm test, and 3 lab reports before the Voluntary Withdrawal date, March 22, 2023)

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm test(^a)</td>
<td>25%</td>
</tr>
<tr>
<td>10-15 min quizzes(^b), 2@6%</td>
<td>12%</td>
</tr>
<tr>
<td>Lab Reports (^c) (5@ ~ 5%*) *Refer to table below for precise % value</td>
<td>25%</td>
</tr>
<tr>
<td>Final Examination (all lecture sections, 3 hr)(^d)</td>
<td>35%</td>
</tr>
<tr>
<td>Discussion and active class participation</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

\(^a\)Midterm test is tentatively scheduled on February 17\(^{th}\) 2023
\(^b\)Quizzes are tentatively scheduled on January 25\(^{th}\) and March 22\(^{nd}\) 2023
\(^c\)Lab reports are due 2 weeks after the laboratory session according to the schedule and instructions below. The penalty for late submission is a deduction of 10%/day of the original mark. Refer to the LAB SCHEDULE below for due dates.
\(^d\)Final exam date will be set by the Registrar’s Office.
Winter semester: January 09 – April 12 2023
Winter break: Feb 20-24, 2023

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Content &amp; Teaching Strategies</th>
<th>Required Readings or any Pre-class Preparation</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 09</td>
<td>Introduction</td>
<td>Course outline</td>
<td></td>
</tr>
<tr>
<td>Jan 11</td>
<td>Evolution in Food Processing</td>
<td>Course notes in UM Learn</td>
<td></td>
</tr>
<tr>
<td>Jan 13</td>
<td>Food Safety and Regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 16</td>
<td>Sauerkraut Fermentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 18</td>
<td>Apple Juice Processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 20</td>
<td>Potato Processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 23</td>
<td>Egg Processing I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 25</td>
<td>Egg Processing II – Continued</td>
<td>Quiz 1 – End of the class</td>
<td>Quiz 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Due Date</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feb 25th Jan 2023</td>
</tr>
<tr>
<td>Jan 27</td>
<td>Heat Transfer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 30</td>
<td>Heat Transfer (Continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 01</td>
<td>Heat Transfer (Continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 03</td>
<td>Thermal Processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 06</td>
<td>Thermal Processing – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 08</td>
<td>Thermal Processing – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 10</td>
<td>Thermal Processing – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 13</td>
<td>Thermal Processing – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 15</td>
<td>UHT aseptic processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 17</td>
<td>Midterm Exam</td>
<td>Midterm Exam</td>
<td>Midterm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feb 17th 2023</td>
</tr>
<tr>
<td>Feb 20</td>
<td>Louis Riel Day – No classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 22</td>
<td>Winter break – No classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 24</td>
<td>Winter break – No classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 27</td>
<td>UHT aseptic processing - Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 01</td>
<td>UHT aseptic processing – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 03</td>
<td>Water Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 06</td>
<td>Water Activity – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 08</td>
<td>Water Activity – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 10</td>
<td>Evaporation I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 13</td>
<td>Evaporation II – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 15</td>
<td>Drying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 17</td>
<td>Drying – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 20</td>
<td>Chilling Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 22</td>
<td>Chilling Technology – Continued</td>
<td>Quiz 2 – End of the class</td>
<td>Quiz 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Due Date</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mar 22nd 2023</td>
</tr>
<tr>
<td>Mar 24</td>
<td>Freeze Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 27</td>
<td>Freeze Technology – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Class participation</td>
<td>Final Exam</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------</td>
<td>---------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Mar 29</td>
<td>Food Packaging</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Mar 31</td>
<td>Food Packaging – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 03</td>
<td>Sanitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 05</td>
<td>Sanitation – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 07</td>
<td><strong>Good Friday – No classes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 10</td>
<td>Sanitation – Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 12</td>
<td><strong>Review of the class material</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>Final Exam (cumulative)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Date will be set by Registrar’s office)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final Exam</td>
<td>To be Decided</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab Reports</td>
<td>See lab schedule</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35.0%</td>
</tr>
</tbody>
</table>

**Important Information about Evaluation Procedures**

- There are no makeup quizzes, if absent for a quiz without a proper physician’s note or substantiated and compelling personal matter documented in writing, the quiz mark = 0. If a valid excuse is provided within 24hrs after the quiz, the value of the quiz mark to be added to the next following term test or final Exam.
- Suppose a student is absent for the midterm test and provides a proper physician’s note or written explanation of a substantiated and compelling personal matter. In that case, a makeup test will be scheduled as soon as possible. Otherwise, a mark of 0 will be applied.
- If you are a student with a disability, please contact Student Accessibility Services (SAS) for academic accommodation support 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. Student Accessibility Services [http://umanitoba.ca/student/saa/accessibility/](http://umanitoba.ca/student/saa/accessibility/), 520 University Centre, phone: 204-474 7423, email: Student_accessibility@umanitoba.ca

**Lab Expectations**

Any communication related to the lab section of the course has to be primarily directed to the lab TA (Thilini Dissanayake – dissanat@myumanitoba.ca). If you need further clarifications on the lab section, you can reach me using my email (preferred method of communication - Nandika.Bandara@umanitoba.ca)

- Technicians and Lab TAs will treat you with respect and would appreciate the same courtesy in return. You are expected to comply with all lab rules and regulations as stipulated in the Lab Manual which is posted on UM Learn.

*NOTE:* First in-person lab starts on January 18th 2023. “Before the first laboratory, you are required to complete and pass (with a mark of at least 80% and correct responses to a few critical questions) the WHMIS safety assessment quiz available through UM Learn. You may take this test as many times as is necessary to pass.”
• The overall goal is to give students practical experience in food processing and effectively work in groups. The labs for this course are group projects that require students to attend in-person labs they are registered for. **There will be a total of 25% of the final grade given for labs.** The lab manual will be available on UM Learn.

• **In-person lab attendance is mandatory** (there are no makeup labs). 100% of the mark allocated to a lab will be deducted if absent without a physician’s note or documentation of a compelling personal matter. Students are not allowed to hand over lab reports without attending the virtual lab.

• Students will work in groups as assigned for labs, but each student will submit his/her own report. Any evidence of plagiarism in lab reports (e.g. whether from another lab partner, or group, or lab report from previous courses) will result in “0” mark, and the matter will be subject to disciplinary action in accordance with university policy on academic misconduct.

### Lab Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Lab Content &amp; Teaching Strategies</th>
<th>Required Readings or Pre-Class Preparations</th>
<th>Lab report</th>
<th>Value of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 11</td>
<td>No lab session</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| January 18    | **Sauerkraut Lab**  
Group 1 (2:30 – 4:00 pm)  
Group 2 (4:15 – 5:45 pm) | Lab Manual | Feb 01<sup>st</sup> 2023 | 5%         |
| January 25    | **Apple juice Lab**  
Group 1 (2:30 – 4:45 pm) | Lab Manual | Feb 08<sup>th</sup> 2023 | 5%         |
| February 01   | **Apple juice Lab**  
Group 2 (2:30 – 4:45 pm) | Lab Manual | Feb 15<sup>th</sup> 2023 | 5%         |
| February 08   | **Drying Lab**  
(Drying curve)  
Group 1 (2:30 – 4:45 pm) | Lab Manual | Feb 22<sup>nd</sup> 2023 | 5%         |
| February 15   | **Drying Lab**  
(Drying curve)  
Group 2 (2:30 – 4:45 pm) | Lab Manual | Mar 1<sup>st</sup> 2023 | 5%         |
| Feb 22        | No lab – Reading Week                              |                                            |            |                      |
| March 1       | **Canning Lab**  
Group 1 (2:30 – 4:45 pm) | Lab Manual | Mar 15<sup>th</sup> 2023 | 5%         |
| March 8       | **Canning Lab**  
Group 2 (2:30 – 4:45 pm) | Lab Manual | Mar 22<sup>nd</sup> 2023 | 5%         |
| March 15      | **French Fry Lab**  
Group 1 (2:30 – 4:45 pm) | Lab Manual | Mar 29<sup>th</sup> 2023 | 5%         |
### French Fry Lab

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Lab Manual</th>
<th>Grade</th>
<th>Final Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 22</td>
<td><strong>French Fry Lab</strong></td>
<td>Lab Manual</td>
<td>Apr 05th 2023</td>
<td>5%</td>
</tr>
<tr>
<td>Mar 29</td>
<td>No lab sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 05</td>
<td>No lab sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 12</td>
<td>No lab sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* A complete lab schedule, your assigned groups with exact times and location of in-person labs for each group will be posted in UMLearn. The lab schedule may slightly change to accommodate infrastructure requirements.

## Grading

Indicate your grading scale. A sample is given below that you can adjust to your course expectations.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage out of 100</th>
<th>Grade Point Range</th>
<th>Final Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
<td>4.25-4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>A</td>
<td>80-89.9</td>
<td>3.75-4.24</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>75-79.9</td>
<td>3.25-3.74</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>66-74.9</td>
<td>2.75-3.24</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>61-65.9</td>
<td>2.25-2.74</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>56-60.9</td>
<td>2.0-2.24</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>50-55.9</td>
<td>Less than 2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Less than 50</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

## Voluntary Withdrawal

- **The last day to drop the class and receive 100% refund is 20th January 2023.**
- **The last day to withdraw with no refund (voluntary withdrawal) is 22nd March 2023**

Refer to the [Registrar’s Office](https://umanitoba.ca/registrar) web page for more information.

All important dates and deadlines are listed here: [https://umanitoba.ca/registrar/important-dates-deadlines#winter-term-2023](https://umanitoba.ca/registrar/important-dates-deadlines#winter-term-2023)

## ASSIGNMENT DESCRIPTIONS

Lab assignment description will be provided with the Lab Manual, which will be uploaded to the UM Learn.
Referencing Style

Assignment Feedback
Both formative (i.e., comments) and summative (i.e., grade) feedback will be provided for the lab assignments, quizzes and mid-term Exam. The feedback will be delivered electronically. The Lab assignments will be handover one week after the submission date.

Assignment Extension and Late Submission Policy
Lab reports/Hand-Ins are generally due 2 weeks after the laboratory session according to schedule and instructions. The penalty for late submission is a deduction of 10% per day of the original mark. Refer to LAB SCHEDULE for due dates. UM Learn submission of assignments is the accepted method of handing over the assignment.

UNIVERSITY SUPPORT OFFICES & POLICIES
Schedule “A” - The Schedule “A” provides information on university support offices and policies available for students during the academic terms.

Section (a) sample re: A list of academic supports available to Students, such as the Academic Learning Centre, Libraries, and other supports as may be appropriate:

Writing and Learning Support
The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor’s feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 205 Tier Building.

University of Manitoba Libraries (UML)
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 managing citations, or locating appropriate resources, 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 in-person. A complete list of liaison librarians can be found by subject: [http://bit.ly/WcEbA1](http://bit.ly/WcEbA1) or name: [http://bit.ly/1tJ0bB4](http://bit.ly/1tJ0bB4). In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: [http://bit.ly/1sXe6RA](http://bit.ly/1sXe6RA). When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries’ homepage: [www.umanitoba.ca/libraries](http://www.umanitoba.ca/libraries).

Section (b) sample: re: A statement regarding mental health that includes referral information:

**For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.**

**Student Counselling Centre**
Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. **Student Counselling Centre:** [http://umanitoba.ca/student/counselling/index.html](http://umanitoba.ca/student/counselling/index.html)
474 University Centre or S207 Medical Services
(204) 474-8592

**Student Support Case Management**
Contact the Student Support Case Management team 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** [http://umanitoba.ca/student/case-manager/index.html](http://umanitoba.ca/student/case-manager/index.html)
520 University Centre
(204) 474-7423

**University Health Service**
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** [http://umanitoba.ca/student/health/](http://umanitoba.ca/student/health/)
104 University Centre, Fort Garry Campus
(204) 474-8411 (Business hours or after hours/urgent calls)

**Health and Wellness**
Contact our Health and Wellness Educator if you are interested in peer support from Healthy U or information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault. **Health and Wellness Educator** [https://umanitoba.ca/student/health-wellness/welcome-about.html](https://umanitoba.ca/student/health-wellness/welcome-about.html)
britt.harvey@umanitoba.ca
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

Section (c) sample: re: A notice with respect to 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 University of Manitoba community. Visit http://umanitoba.ca/copyright for more information.

Section (d) sample: re: A statement directing the student to University and Unit policies, procedures, and supplemental information available on-line:

Your rights and responsibilities

As a student of the University of Manitoba 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 Academic Calendar http://umanitoba.ca/student/records/academiccalendar.html is one important source of information. View the sections 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 http://umanitoba.ca/registrar/

- 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 http://umanitoba.ca/academicintegrity/ 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 conduct yourself in an appropriate respectful manner. Policies governing behavior include the:
Respectful Work and Learning Environment

http://umanitoba.ca/admin/governance/governing_documents/community/230.html

Student Discipline

http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html and,

Violent or Threatening Behaviour

http://umanitoba.ca/admin/governance/governing_documents/community/669.html

- 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 Assault policy may be found at:
  http://umanitoba.ca/admin/governance/governing_documents/community/230.html
  More information and resources can be found by reviewing the Sexual Assault site http://umanitoba.ca/student/sexual-assault/

- For information about rights and responsibilities regarding Intellectual Property view the policy https://umanitoba.ca/governance/sites/governance/files/2021-06/Intellectual_Property_Policy_-_2013_10_01_RF.pdf

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 http://umanitoba.ca/faculties/

Contact an Academic Advisor within our faculty/college or school for questions about your academic program and regulations http://umanitoba.ca/academic-advisors/

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