

Syllabus

PLNT 1000: Urban Agriculture
(Winter 2022)

Faculty of Agricultural and Food Sciences
Department of Plant Science

TABLE OF CONTENTS

COURSE DETAILS	3
INSTRUCTOR CONTACT INFORMATION.....	3
GENERAL COURSE INFORMATION	4
COURSE GOALS	6
INTENDED LEARNING OUTCOMES	6
USING COPYRIGHTED MATERIAL	7
RECORDING CLASS LECTURES	7
TEXTBOOK, READINGS, MATERIALS.....	7
COURSE TECHNOLOGY	11
CLASS COMMUNICATION	11
EXPECTATIONS: I EXPECT YOU TO.....	12
STUDENTS ACCESSIBILITY SERVICES.....	13
EXPECTATIONS: YOU CAN EXPECT ME TO	13
CLASS SCHEDULE.....	13
COURSE EVALUATION METHODS.....	15
GRADING	16
REFERENCING STYLE.....	16
ASSIGNMENT DESCRIPTIONS.....	16
ASSIGNMENT GRADING TIMES	17
ASSIGNMENT EXTENSION AND LATE SUBMISSION POLICY	18
SCHEDULE A – SUPPORT SERVICES AVAILABLE TO STUDENTS.....	19

COURSE DETAILS

Course Title & Number:	PLNT 1000 – Urban Agriculture
Number of Credit Hours:	3
Class Times & Days of Week:	Lectures – MWF 1:30-2:20 https://umanitoba.zoom.us/j/61533172422?pwd=NTJidkZOQUZyZ0Y2R2NoUEFxeThydz09
Location for classes/labs/tutorials:	Lectures will be held online via Zoom. Please download zoom onto your device to attend lectures. Check your email and UM Learn for more information about how to connect to lectures. This course will be delivered entirely remotely.
Pre-Requisites:	None

Instructor Contact Information

Instructor(s) Name:	Dr. Patrick Friesen
Preferred Form of Address:	Patrick or Dr. Friesen
Office Location:	TBA
Office Hours or Availability:	By appointment via zoom Monday to Friday, 8am – 4:30pm.
Office Phone No.	
Email:	patrick.friesen@umanitoba.ca

All email communication must conform to the [Communicating with Students](#) university policy (see details below). Please use your U of

M email address. It is expected that your communications be done in a professional manner with proper sentence structure and punctuation. Please include your name and which class you are in. Emails will be answered as time permits on week days.

Contact:

I will be available for questions for a few minutes before and after classes in the zoom lecture room. Otherwise please contact me via email and I will respond as soon as I can.

Course Description

PLNT 1000 Urban Agriculture Cr.Hrs. 3. Urban environments and their importance for food production, increasing biodiversity, and reducing pollution are presented. Topics include controlled environment agriculture (greenhouses and vertical farms), principles of vegetable, fruit and herb production, landscape plants, and utilization of natural systems for composting, water management and reduced pesticide use. Benefits to environment, community development, and human health are discussed.

Instructional Methods

A combination of instructional methods will be used in this course. Online lectures will be delivered in combination with group work, use of video and internet resources, case studies, and practical examples. Students will also learn to develop their information research skills through short assignments and will work in groups to complete more complex projects. Students will present one of their projects in the classroom and lead discussion related to their project. Guidelines and examples will be provided to students to ensure they have the necessary tools to complete their work.

General Course Information

Why this course is useful?

Interest in local food production in urban centers to provide affordable, healthy food to urban populations has grown rapidly over the past five years. The increasingly negative effects of global change on field agriculture and the labour shortages and supply chain disruptions from the continuing pandemic necessitate a secure supply of safe and nutritious food within and close to urban centres. Interest in growing plants at home (inside and out) has also increased dramatically with the COVID-19 pandemic in urban centres. Vertical farming is rapidly growing as a viable way to provide leafy greens year-round to urban centres. With the majority of the world's population now living in urban centers, practicing agriculture in these areas can help people connect with food production and provide benefits to their diets, the environment, and overall health. As fuel costs increase there will be even greater need for local food production to support the health and nutrition of urban populations. A number of organizations have been established in the past five to ten years to promote local food production in urban settings, but there is the potential to significantly expand participation in urban agriculture. Urban

food production can benefit lower income families that may not be able to afford fresh produce, provide immigrants with the opportunity to grow or access traditional foods, encourage youth to participate in community projects and develop a sense of responsibility and accomplishment, provide opportunities for physical and mental therapy, and benefit numerous other urban groups. Urban agriculture can play a significant role in waste management through composting of yard and food waste, improve water management, and provide temperature moderation effects. Urban forests and natural areas contribute to the overall health of the urban environment and can act as refuge zones for beneficial insects, improve air quality, and enhance recreational activities. Urban food production sites are diverse and there are many site specific considerations that will need to be made in order to successfully produce food. However, with proper planning and management these sites can be extremely productive. This course will teach basic principles related to food production in urban environments and will emphasize practices that can maximize benefits to the environment and human health. Topics include principles of food production in urban environments including controlled environment agriculture (greenhouse production and vertical farms), utilization of natural systems to improve biodiversity, waste management through composting, water collection and utilization, and strategies to reduce pesticide and nutrient load in the environment. Different models of urban food production will be explored and concepts in urban planning, activism, and leadership related to urban agriculture will be considered. Benefits to the environment, community development, and human nutrition and health will be discussed.

Who should take this course?

This course will be of interest to the following groups:

- 1) Students interested in urban food production, controlled environment agriculture, and food security either at the local or global level
- 2) Community leaders or others interested in developing programs and food production opportunities in their neighborhoods
- 3) Students interested in city planning and policy development that will promote urban agriculture and realize the benefits to urban sustainability, waste and water management, and reduce pesticide and nutrient load
- 4) Indigenous/Aboriginals, immigrants and other groups that could benefit from urban food production, but may have had little exposure to food production practices in urban environments
- 5) Environmental science students interested in reducing pesticide and nutrient loads, promoting biodiversity, supporting beneficial insects, and managing urban forests and grasslands
- 6) Health professionals and social workers interested in developing or using urban agriculture programs improve the physical and mental health of their clients
- 7) Individuals or groups interested in generating income through urban food production
- 8) Home owners wanting to learn how to utilize their yards for food production, manage yard waste, etc.

How this course fits into the curriculum

This course fits into the curriculum as a free elective in the Faculty of Agricultural and Food Sciences. It could also fit as a free elective in other programs. This course could be followed by a course such as PLNT 2510 Fundamentals of Horticulture.

Course Goals

By the end of this course, students will:

1. Be able to identify the value of urban agriculture in developing and developed nations and understand the forces necessary for successful advancement of urban agriculture.
2. Know the basic principles of urban agriculture and identify the necessary requirements for production of different types of plants in an urban environment.
3. Understand the important factors, environmental variables, and technologies to optimize plant growth in controlled environment agriculture (greenhouses and vertical farms).
4. Be able to conduct an evaluation of an urban site for potential food production, develop a plan for site development, and establish a strategy for successful food production.
5. Be able to consider different models for urban food production in a location (e.g. community garden, individual land owner, cooperative, commercial market garden, etc.) and develop basic recommendations for interested parties.
6. Be able to communicate concepts related to urban food production to community leaders, health professionals and urban policy makers.
7. Be able to gather information from multiple sources to successfully develop and implement plans for urban food production.

Intended Learning Outcomes

Through this course students will build a number of skills that will contribute to their personal and professional development. Examples of the types of skills developed are as follows:

Knowledge and technical expertise: The knowledge and technical expertise gained through this course will provide basic life skills to the students as well as building on their professional expertise. Basic life skills can be applied throughout the student's life. For example, learning about the necessary materials and methods to cost effectively grow leafy greens indoors during the winter will benefit students. Some students may also eventually become home owners and may use the knowledge and technical expertise gained from this course to incorporate food production, waste and water management techniques, promote beneficial insects or reduce nutrient or pesticide loads on their own properties. These students may also be involved in community associations and may help to influence development of healthy urban environments within their communities. On a professional level, students will have the knowledge and technical expertise to participate in extension activities, community development, urban planning, waste and water management, etc.

Social accountability: The concepts of urban agriculture must be taught within the context of an entire social structure. Therefore, students will have exposure to a broad range of social and economic models that may influence their thinking regarding the role of urban agriculture within an urban social structure. Students will gain awareness and knowledge of factors that may influence their thoughts on social and environmental accountability.

Communications skills: Through assignments and class participation students will gain research skills as well as oral and written communication skills. They will also have to develop strategies to cooperate in a group setting and deliver a cohesive group project.

Using Copyrighted Material

Please respect copyright. 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. For more information, see the University's Copyright Office website at <http://umanitoba.ca/copyright/> or contact um.copyright@umanitoba.ca.

Recording Class Lectures

Dr. Patrick Friesen and the University of Manitoba hold copyright over the course materials, presentations and lectures which 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. Patrick Friesen. Course materials are for the participant's private study and research.

Textbook, Readings, Materials

Textbook(s) – Authors, Titles, Edition

No textbook is required for this course. However, specific resources may be made available either through the library reserve system or electronically through the course UM Learn site. In addition, partial lecture notes will be posted on the UM Learn site prior to the lectures when appropriate. **It is the student's responsibility to check the site and bring relevant lecture materials to class to assist with note-taking.** (The information below is not intended to be a comprehensive list but provides examples of available resources.)

Additional Materials

Students will be expected to make extensive use of internet resources, government reports, basic production information and scientific journals. Examples of resources that will be accessed include:

North American urban agriculture resources:

<https://urbanagnews.com>

<https://www.controlledenvironments.org/>

<https://scri-optimia.org/cafe.php>

<https://glase.org/>

<https://www.hortlamp.org/>

<https://www.hortidaily.com/>

<https://www.verticalfarmdaily.com/>

<https://gpnmag.com/>

<http://www.cityfarmer.info/>

<https://modernfarmer.com/>

Winnipeg/Manitoba based urban agriculture and community supported agriculture resources:

<https://www.fireweedfoodcoop.ca/>

<https://klinik.mb.ca/2021/06/my-time-in-the-klinik-garden/>

<https://www.dehydrationnations.com/>

<https://csamanitoba.org/find/>

<https://www.directfarmmanitoba.ca/>

<https://www.greenhousecanada.com/two-years-in-local-farming-project-soars-in-first-nation-community/>

<https://www.mgmanitoba.com/>

<https://winnipeg.ca/publicworks/parksopenspace/CommunityGardens/default.stm>

https://www.gov.mb.ca/inr/pdf/pubs/community_gardener_guidebook.pdf

Winnipeg/Manitoba based controlled environment agriculture businesses:

<https://www.3guysgreens.com/>

<https://nevafarms.com/>

<https://www.freshforage.ca/>

Apparently, some Sobeys in Winnipeg are getting their own vertical farm:

<https://www.sobeys.com/en/infarm/>

Horticultural Council of Canada:

<https://hortcouncil.ca/>

Controlled environment agriculture companies in Canada:

<https://www.foodincanada.com/features/vertical-farming-on-the-rise/>

<https://elevate.farm/>

<https://www.goodleaffarms.com/>

<https://canadianfoodfocus.org/canadian-food-stories/farming-up-what-is-vertical-farming/>

<https://www.cbc.ca/news/canada/kitchener-waterloo/andrew-coppolino-vertical-farming-1.5739050>

<https://www.greenhousecanada.com/vertical-farm-opens-first-of-20-planned-facilities/>

<https://cubicfarms.com/>

<https://www.thegrowcer.ca/>

<https://justvertical.com/>

Controlled environment agriculture companies in the United States:

<https://www.agritecture.com/>

<https://www.plenty.ag/>

<https://boweryfarming.com/>

<https://www.aerofarms.com/>

<https://www.freightfarms.com/>

<https://www.brightfarms.com/>

<https://www.appharvest.com/>

Other resources outside North America:

UN FAO publications such as: 1) Setting up and running a school garden: a manual for teachers, parents and communities, <http://www.fao.org/docrep/009/a0218e/a0218e00.htm>, and 2) The state of food insecurity in the world <http://www.fao.org/state-of-food-security-nutrition/en/>.

<https://npoplantfactory.org/en/>

<https://www.wur.nl/en/Dossiers/file/Vertical-farming.htm>

European controlled environment agriculture companies:

<https://v-farm.co.uk/>

<https://www.infarm.com/>

<https://www.jungle.bio/junglevision>

Useful Journals

Acta Horticulturae
Horticulture
HortScience
Hortechonology
Journal of Vegetable Science
Journal of Vegetable Crop Production

Books or reports

- de la Salle, J. and Holland, M. Agricultural Urbanism. Handbook for building sustainable food & agricultural systems in 21st century cities. Independent Publishers Group. Winnipeg. 250.
- Fairholm, J. 1999. Urban agriculture and food security initiatives in Canada: A survey of Canadian non-governmental organizations. International Development Research Centre. Ottawa.
- Greenstein, R. and Sungu-Eryilmaz, Y. (eds.) 2004. Recycling the city: the use and reuse of urban land. Lincoln Institute of Land Policy, Cambridge, Mass. 260 pp.
- Kozai, Toyoki, Genhua Niu, and Masabni, J.G. (eds.) 2021. Plant Factory Basics, Applications and Advances. Elsevier, 449 pp.
- Maynard, D.N., Hochmuth, G.J. and Knott, J.E. 2007. Knott's handbook for vegetable growers. Fifth Edition John Wiley, New York. 621 pp.
- McPherson, E.G. and Simpson, J. 1999. Carbon dioxide reduction through urban forestry: guidelines for professional and volunteer tree planters. United States Department of Agriculture. Berkeley California. 237 pp.
- Mougeot, L.J.A. 2005. Agropolis: the social, political and environmental dimensions of urban agriculture. Earthscan, Sterling Va. 286 pp.
- Mougeot, L.J.A. 2006. Growing better cities: urban agriculture for sustainable development. International Development Research Centre. Ottawa.
- Nordahl, D. 2009. Public produce. The new urban agriculture. Island Press. Washington. 177 pp.
- Nowak, D.J. 2006. Assessing urban forest effects and values. Washington D.C.'s urban forest. United States Dept. of Agriculture, Forest Service, Northern Research Station. Newton Square, PA. 24pp.
- Rubatzky, V.E. and Yamaguchi, M. 1997. World vegetables: principles, production and nutritive values. 2nd ed. Chapman & Hall, New York. 843 pp.
- van Veenhuizen, R. (ed.) 2006. Cities farming for the future: urban agriculture for green and productive cities. International Institute for Rural Reconstruction (Philippines) and International Development Research Centre. 474 pp.
- Viljoen, A., Bohn, K. and Howe, J. 2005. Continuous productive urban landscapes: designing urban agriculture for sustainable cities. Architectural Press, Oxford, Boston. 280 pp.

Community resources

Manitoba Agriculture Urban GO Team

Food Matters Manitoba

Friends of the Assiniboine Park Conservatory

Winnipeg Community Garden Network

Compost Winnipeg

The Prairie Garden

Dehydration Nations: <https://www.dehydrationnations.com/>

Course Technology

It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Student Accessibility Services. Students should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline “gaming” during scheduled class time. If a student is on call (emergency) the student should switch his/her cell phone on vibrate mode and leave the virtual classroom before using it. (©[S Kondrashov](#). Used with permission)

Electronic copies of the course syllabus and assignments will be posted on the courses UM Learn site. Go to the University of Manitoba website umanitoba.ca. Click on the UM Learn icon on the University’s homepage and find the course on your course list. I will only post information on the A01 section.

Note, that although I use PowerPoint for lectures I will only post partial PowerPoint lecture notes. Students are expected access these notes prior to class and to attend class and take their own notes based on the lectures presented.

Class Communication

The University requires all students to activate an official University email account. For full details of the Electronic Communication with Students please visit: <https://catalog.umanitoba.ca/undergraduate-studies/policies-procedures/electronic-communication-students/electronic-communication-students.pdf>

Please note that all communication between me and you as a student must comply with the electronic communication with student policy (<https://umanitoba.ca/governance/sites/governance/files/2021->

[06/Electronic%20Communication%20with%20Students%20Policy%20-%202013_09_01%20RF.pdf](#)). You are required to obtain and use your U of M email account for all communication between yourself and the university.

Expectations: I Expect You To

Students are expected to attend and participate in all classes and work sessions as scheduled. It is the student's responsibility to take notes, participate in class discussions, and ask questions if they do not understand a point. Students are expected to arrive to class on time and be ready to take notes when the class starts. Notes for missed classes or work sessions will not be provided to the student by the professor. If further clarification is required, it is the student's responsibility to contact the professor and set an appointment to discuss the problem. Students can take notes with notebooks, tablets, or laptops, provided they do not interfere with other students in the class. Students, the professor, and work session assistants are expected to comply with the University of Manitoba's [Respectful Work and Learning Environment Policy](#).

Academic Integrity

Academic dishonesty is a serious offence. Please refer to the General Academic Regulations section in the 2021/22 General Calendar for information on 'Plagiarism and Cheating' in the "Academic Integrity" section and 'Examinations: Personations' in the "Final Examinations Regulations" section.

Use of Third Party Detection and Submission Tools

Electronic detection tools may be used to screen assignments in cases of suspected plagiarism.

Group Work Policies

Where assignments are assigned as group projects, students will be required to hand in one assignment with the names of all students that participated in the assignment listed on the title page of the assignment. In addition, each student will be asked to complete a statement of their contribution to the assignment and an assessment of their partners' contributions to the assignment.

Individual Work Policies

For individual assignments, students may cooperate and discuss the assignment; however, each student must hand in their own assignment, written in their own words. Material handed in **must be the student's own work** and properly credit others through appropriate scientific citation for information that is from other sources. (Note: a variety of citation styles are acceptable, but sufficient information to retrieve the original article must be provided.) Duplicate assignments (either whole or part) will be

considered acts of academic dishonesty and will be subject to disciplinary action according to University policy.

Students Accessibility Services

Student Accessibility Services

If you are a student with a disability, please contact 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.

Student Accessibility Services <https://umanitoba.ca/student-supports/accessibility>

520 University Centre

204 474 7423

Student_accessibility@umanitoba.ca

Expectations: You Can Expect Me To

I believe in active learning and want students to be thinking as we progress through the classes. I use primarily a lecture style format, but will answer questions from students as required to ensure that students understand the material. I may also use short videos and will ask for discussion of key points at the conclusion of the video. I may also ask students questions prior to introducing a new subject to determine what their knowledge base is, or to get them thinking about a topic. This may be done orally or through iclicker. If I ask a question orally, students are expected to volunteer answers to these questions. If no one volunteers an answer, I may call on a specific student to answer the question. There is no penalty for answering an oral question incorrectly (see grading for iclicker questions). Pay attention to these questions as they often identify important material for examination. This process provides me with a check to make sure student's understood the previous material and gets students back into the frame of mind for the subject matter.

I believe that we learn best by doing. Everything that is assigned for this class is designed to enhance learning of the subject matter.

Class Schedule

Lectures will be held on MWF from 1:30-2:20 virtually via zoom starting January 24, 2022 and ending April 25, 2022. This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students but such changes are subject to Section 2.8 of [ROASS](#).

Important Dates:

January 24, 2022	Lectures begin
February 11, 2022	Food Diary Assignment Due
February 22 - 25, 2022	Louis Riel Day (Feb. 21) and Mid-term break
March 4, 2022	Fact Sheet Assignment Due
April 8, 2022	Urban Planning Project – Written Part Due
April 15, 2022	Good Friday – University Closed
April 11 - April 20, 2022	Urban Planning Project - Oral presentations in class
April 25, 2022	Last day for voluntary withdrawal (see Registrar’s office for more info)
April 25, 2022	Last day of classes
April 26 – May 3, 2022	Final examination period – students are required to be available during this time. Lockdown Browser + Respondus Monitoring (Remotely)

Course Content

The following represents a tentative lecture outline. Some topics may be changed depending on the interests of the students in the class and availability of guest lecturers. The lecture order may change depending on the availability of guest speakers and other resources.

1. Introduction - A general overview of urban agriculture will be provided. Topics will include current food distribution systems and food choices, characteristics of urban environments, urban agriculture around the world, food security, nutritional considerations, policy, and urban agriculture in Canada and on the prairies.
2. Models of urban agriculture – Examples of different types of urban agriculture will be presented. We will begin with the simplest form of “balcony” agriculture and work our way through backyard gardens, community gardens, market gardens, cooperatives, and commercial operations including controlled environment agriculture (greenhouses and vertical farms). Education, labour and resource requirements will also be discussed.
3. General principles of plant growth for food production – Topics will include understanding the key environmental variables and factors affecting plant growth, unique challenges of urban environments, site planning and design, soil preparation, requirements for plant growth, water and waste management, extending the growing season, and food preservation and utilization. In addition, key technologies of controlled environment agriculture will be discussed.
4. Vegetable, herb and fruit production – The requirements and cultural practices for production of groups of vegetables, herbs and fruit will be included with emphasis on species that are adapted to the Canadian prairies.
5. Synergies by design – Options for optimization of land use and production will be discussed. Topics will include complementary planting, natural pest management strategies, promotion of beneficial insects, water collection systems, composting, heating and cooling, genetic conservation, aesthetics and considerations for children and pets.

6. Urban forests and natural reserves – The importance of natural ecosystems within urban settings will be discussed. Water management, temperature moderation, recreation, animal refuges, biodiversity and sustainability will be included in this discussion.
7. Health benefits – Topics will include, how availability of local, fresh food can contribute to the nutritional status of urban populations, the role of urban agriculture in promoting physical activity, contribution of local food production to communities, and the therapeutic benefits of urban agriculture.
8. Environmental benefits – Concepts will be presented on contribution of urban agriculture to healthier urban environments through improved sustainability, reductions in fossil fuel consumption, reduced waste, improved water management, promotion of beneficial insects and animals, and improved air quality. The environmental benefits and costs of greenhouse production and vertical farming will be discussed.
9. Policy – The role of government, and non-government organization in developing and promoting plans for urban agriculture will be discussed. Policy related to utilization of public spaces, development of composting, water and waste management plans, land ownership and rental, and community design will be presented.
10. Student Presentations – Students will present the results of their urban planning projects.

Course Evaluation Methods

Grade Evaluation

The grade will be evaluated through a combination of assignments, iclicker participation, and the final exam.

Grade Assignment and Due Dates

Description	Comments	Percent of Final grade	Due Date (where applicable)
Food Diary Assignment		12%	Feb. 11
Fact Sheet Assignment		10%	Mar. 4
Urban Planning Project	Students will work in groups and submit joint assignments	30%	Written Part – Apr. 8 Oral Presentations – Apr. 11 – Apr. 20
iClicker	See grade explanation below	8%	
Final Exam	2 h exam to be held during examination period Lockdown Browser + Respondus Monitoring (Remotely) Students must remain available	40%	Scheduled by the University: Apr. 26 – May 3

	for entire exam period		
Total		100%	

iClicker – Students are required to use the iclicker app in class. For questions that have no correct answer students will receive one point. For questions that have a correct answer, students will receive one point for answering the question and one point for the correct answer. Students will be assigned an iclicker grade based on the total proportion of iclicker points earned. Students that earned at least 80% of the iclicker points will receive 8/8 marks, those the earned 70-79.9% of the iclicker grade will receive 6/8 marks, those with 60-69.9% of the iclicker points will receive 4/8 marks, those with 50-59.9% will receive 2/8 marks and those with less than 50% iclicker points will receive 0/8 marks. We will be using iClicker Cloud through the iClicker student app: <https://www.iclicker.com/>

Grading

I do not use a standardized grading scale to assign a final grade. In general, the class average is set as a grade of B and student's grade assignments are assigned up or down from this relative to groupings of students within the class. For more information on the approved grading scale (grade assignments), click [here](#). The class average, range of grades and grade distribution will be communicated to students for the Food Diary and Fact Sheet assignments so that students can gauge their performance relative to their classmates.

Referencing Style

Any standard scientific referencing style is acceptable provided that sufficient information is provided for the reader to successfully retrieve the resource. Typical reference information should include: Author(s), date, title, journal, volume, page numbers. Refer to the referencing and citation style used by the Canadian Journal of Plant Science or Crop Science for guidance. For websites, the author, title, URL and date accessed are required. The format used should be consistent throughout the document (i.e. do not use different referencing styles for different items on your reference list.). The library is a good resource if you have doubts about how to cite materials. Please refer to: <http://libguides.lib.umanitoba.ca/citingandwriting> for more information. Librarians are also available to any questions you may have regarding referencing and citations. Make use of this resource.

Assignment Descriptions

Description of Assignments

Assignments will include two individual assignments, and an urban planning assignment. The first individual assignment is designed to encourage self-awareness of food choices and to allow students to conduct research to answer specific questions. The second individual assignment will require students to develop a "fact sheet" that identifies the basic growing conditions required for a specific plant species and where this species fits in an urban food production system. For the urban planning project, students will be assigned to groups and given a specific scenario to work with. From there, the students will design a model system for the scenario they have been given and will present this in a written report and presentation to the class. For each assignment a description of what is to be done and how the assignment will be evaluated. This will be provided to students at the time the assignment is introduced.

Description of Examinations

The final exam will be scheduled during the normal examination period. The exam will be a combination of short answer and problem solving questions. The exam will test the student's knowledge and ability to integrate and apply the knowledge to specific scenarios or situations. **Students must remain available during the final examination period regardless of the scheduled examination date.**

Assignment Grading Times

Normally, students can expect to receive a grade within three weeks of an assignment submission deadline. Evaluative feedback will be provided for the Food Diary and Fact Sheet assignments prior to the VW date.

Assignment Extension and Late Submission Policy

Late Assignments

Assignments are due by 4:30 pm on the assignment due date and are to be submitted via email to patrick.friesen@umanitoba.ca. **The grade on late assignments will be reduced by 10% for each work day that the assignment is late. Assignments are due by 4:30 pm on the due date.**

Missed Assignments

Unexcused missed assignments will be given a grade of zero. Where assignments are missed and excused through written notification such as a doctor's certification of illness, evidence of death in the family, or other circumstances that are beyond the control of the student, the student may be given the following options: 1) complete the assignment and receive the late assignment penalty as described above, 2) establish a new due date with the instructor and complete the assignment without penalty when handed in by the new due date, or 3) the final grade will be determined by increasing the value of the final exam by the amount that would have been allocated to the missed assignment. The instructor has the right to determine which option is the most appropriate to apply.

Missed Final Exam

If the final exam is missed and an appropriate excuse has been provided to satisfy the University of Manitoba's "Deferred Examinations Policy", another exam date will be set at the discretion of the instructor.

Schedule A – Support Services Available to Students

Academic supports are available to students from a number of services such as the Academic Learning Centre, Libraries, etc. Some of the supports available are listed below.

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> or name: <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>. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries' homepage: www.umanitoba.ca/libraries.

Your mental health is an important part of your overall health and your ability to succeed. The following

health and mental health services are available to you:

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>

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>

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 <https://umanitoba.ca/student-supports/health-wellness/university-health-service>

104 University Centre, Fort Garry Campus (currently in a trailer in a lot near the UC)

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

Health and Wellness

Contact our Health and Wellness Educator if you are interested in 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-supports/health-wellness>

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>

The University honours Canada's *Copyright Act*. Questions or concerns with respect to copyright are available as follows:

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.

It is your responsibility to be familiar with University, Faculty and Departmental policies, procedures, and supplemental information. The following information is 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) <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 to 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, please know that there are supports and resources available to you whether or not you choose to report the assault. The University of Manitoba wants to be a safe and supportive place for people to disclose sexual assault and receive the best care and referral possible. Information and resources can be found at the Sexual Assault site (<http://umanitoba.ca/student/sexual-assault/>), and the Sexual Assault policy may be found here: http://umanitoba.ca/admin/governance/governing_documents/community/230.html
- For information about rights and responsibilities regarding **Intellectual Property** view the policy <https://umanitoba.ca/governance/governing-documents/governing-documents-university-community#intellectual-property>

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 your faculty 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

stadv@umanitoba.ca