



UNIVERSITY
OF MANITOBA

University of Manitoba
Faculty of Agricultural and Food Sciences
Department of Food Science

Food 1000

Food safety today and tomorrow

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COURSE DETAILS

Course Title & Number: Food 1000 Food Safety Today and Tomorrow

Number of Credit Hours: 3

Class Times & Days of Week: Tuesday and Thursday 11:30 to 12:45

Location for classes/labs/tutorials: Agriculture Building Room #172

Pre-Requisites: None

Instructor Contact Information

Instructor(s) Name: Snehil Dua, Ph.D.

Preferred Form of Address: Anything polite
Office Location: 408-Human Ecology Building

Office Hours or Availability: Mondays/Wednesday/Friday 2:30-3:15 P.M., or contact by email Snehil.Dua@UManitoba.ca

Office Phone No. 204-4746505 (Please do not leave a message at this number. Write an email instead.)

Email: See above: I will attempt to answer emails within 48 hours.

Contact: If you want to contact me an email with the subject heading **Food 1000 and your name** is best, or you can see me during my normal office hours (see above)

Course Description

A contemporary examination of food safety, where, how, why and when problems may arise and what is and can be done to achieve consistently high quality, safe food. Controversial issues (residues, organic, biotechnology, irradiation, etc.) will be discussed in a balanced manner.

General Course Information

This course should be of interest to anyone who eats. Although a high school knowledge of biology and chemistry would be useful, every attempt is made to make the course accessible to those without this background.

Course Goals

The broad goal of this course is to enable students develop an understanding of the principles of food safety assessment.

Intended Learning Outcomes

The course introduces students to the potential hazards of the food supply system and how these hazards may be mitigated. The course will enable the student to:

1. Recognise the difference between a hazard and a risk.
2. Distinguish between various types of risks and interpret their meaning
3. Understand the principles of risk assessment.
4. Recognize the roles of various stake holders in food safety and their responsibilities in food safety throughout the food chain.
5. Recognize personal responsibility in food safety.

Using Copyrighted Material

Please respect copyright. 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. 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/> or contact um_copyright@umanitoba.ca.

Recording Class Lectures

Michael Trevan 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 Michael Trevan, unless you have approval from Student Accessibility

Services. Course materials (both paper and digital) are for the participant's private study and research only and must not be uploaded to the internet or shared in any way either physically or electronically.

Textbook, Readings, Materials

There are no required reading materials. The following are recommended:

Food Microbiology. An Introduction. Edited by Thomas J. Montville and Karl R. Mathews (2012). 2nd Ed. ASM Press.

Food Microbiology: Fundamentals and Frontiers, edited by Doyle, M. P., and Beuchat, R. L. (2007) 3rd ed. ASM Press, Washington, DC.

DeVries, J. (1996). Food Safety and Toxicity. 349pp. CRC Press Inc. Boca Raton, FL.

Canadian Food Inspection Agency.

<http://www.inspection.gc.ca/eng/1297964599443/1297965645317>

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. You can use all technology in a classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Disability Services. You 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 you are on call (emergency) please switch your cell phone on vibrate mode and leave the classroom before using it. (adapted from ©S Kondrashov. Used with permission)

Material for this course is uploaded to UM Learn. Please see

[http://intranet.umanitoba.ca/academic_support/Centre for the Advancement of Teaching & Learning/resources/wikis_blogs.html](http://intranet.umanitoba.ca/academic_support/Centre_for_the_Advancement_of_Teaching_&_Learning/resources/wikis_blogs.html). for support in using this system

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:

[http://umanitoba.ca/admin/governance/media/Electronic Communication with Students Policy - 2014 06 05.pdf](http://umanitoba.ca/admin/governance/media/Electronic_Communication_with_Students_Policy_-_2014_06_05.pdf)

Please note that all communication between myself and you as a student must comply with the electronic communication with student policy

([http://umanitoba.ca/admin/governance/governing_documents/community/electronic communication with students policy.html](http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html)). 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

Attend,

Participate,

Demonstrate willingness to learn,

Be courteous,

Show academic integrity and honesty.

Work effectively as a team to design and execute class activities.

Not to leave the class before it ends unless there is an emergence to which you must attend.

Leaving a class before the end is disrespectful to your instructor and disruptive towards your fellow students.

Not use your cell phone- Please be respectful in class and turn your cell phone off or onto vibration mode for the duration of the class.

Use your laptop computers to aid your learning- Laptops are a perfect way to take notes in class and share information with peers; be respectful to the instructor and other students while using laptops by staying on task in class.

Answer questions that I will ask of the class. I do not expect you always (or ever!) to get the correct answer, but I do expect you to try and to participate.

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 <http://umanitoba.ca/student/saa/accessibility/>

520 University Centre

204 474 7423

Student_accessibility@umanitoba.ca

Expectations: You Can Expect Me

To treat you fairly and with respect.

I will remain in the classroom for 10 minutes after class to answer any immediate questions.

I recognise that the academic background of this class is very varied. If I say something or use a term that you do not understand please ask for an explanation at the time in class, because it is most unlikely that you are the only one in the room who did not understand.

There is a lot of content, and for many if not most of you the content will be new and challenging. My role is to help you make sense of it and gain new understandings. My aim,

therefore, is to provide support so that all students who engage with this course and its objectives will pass.

This course contains some elements that are controversial (e.g. the utility of GMO based foods). If I say something that you think is strange or not true, then I will respond as best I can to your respectful challenge or request for clarification.

Class Schedule

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 the – [ROASS-Procedure](#)).

Month	Day	Lecture
September	06 H	Orientation
	11 T	Introduction to food safety and A brief history of food safety
	13H	A brief history of food safety
	18T	Hazard vs. Risk definitions, types of risks and risk assessment
	20H	Chemical hazards: Naturally occurring toxins in food.
	25T	Online quiz (risk assessment), No lecture.
	27H	Chemical hazards: Chemicals added to food during processing.
October	02T	Chemical hazards: Chemicals residue from agricultural practices
	04H	Biological hazards and food borne illnesses
	09T	Biological hazards and food borne illnesses
	11H	Preservation of food
	16T	Online activity (death at a wedding), No lecture
	18H	Term test 1 (40 multiple choice questions and 10 fill in the blanks), 25% of the grade
	23T	Media and food safety (Death at a wedding report due on UMLearn)
	25H	Trends in food safety: Antibiotic resistance
30T	Trends in food safety: Genetically engineered (modified) foods	
November	01H	Trends in food safety: Food allergies intolerances and sensitivities
	06T	Food safety trends: Organic food
	08H	Food safety trends: food irradiation
	20T	Online review (not for credits), no lecture

	22H	Term test II (50 multiple choice questions), 25% of the grade
	27T	Critique a media report (online activity) 5% of the grade, No lecture
	29H	Food legislation
December	4T	GMP and HACCP
	6H	Review for the final exam and Wrap up

Course Evaluation Methods

There are two mid-term tests that together make up 40% of the marks. There are two written pieces required, a documentary report and a report on the possible cause of the death of a bride at her (19th century) wedding. In addition, there are three in-class group exercises.

Assignments	Grade
Sept 25: Online quiz (risk assessment) (top hat) (If a student decides not to purchase Top Hat and thus gets zero on this, I will carry the weight of 5% to the final exam.)	5%
October 16: Death at a wedding report (UMLearn)	10%
October 18 and November 22: Midterm exams (two at 25% each) in-class	50%
November 27: Online activity (critique a media report) UMLearn	5%
Almost in Every lecture: 5% Class participation (top hat). For each question you will get 1 point if you answer it correctly, 0.5 points if you answer it incorrectly, and 0 if you do not attempt it. I will drop your worst 20% responses. Example: if there are a total of 40 questions asked, and you missed 3 questions and got 7 incorrect and 30 correct; I will drop the three 0's and five 0.5's. You will have a total score of 31/32.	5%
Final exam	25%

Grading

Standardized grades used are those followed by the Food Science Department:

	Final grade	Letter Grade	Grade Point Value	
	90 - 100%	A+	4.5	Exceptional
	80 - 89%	A	4.0	Excellent
	75 - 79%	B+	3.5	Very Good
	70 - 74%	B	3.0	Good

	65 - 69%	C+	2.5	Satisfactory
	60 - 64%	C	2.0	Adequate
	50 - 59%	D	1.0	Marginal
	Under 50%	F	0.0	Failure

Referencing Style

This is a class of students from across the university, studying different disciplines. I do not therefore expect a particular referencing style, but I do expect the style you use to be consistent. Not providing the references is considered plagiarism. Do not plagiarize.

Assignment Descriptions

Class participation:

Almost in Every lecture: 5% Class participation (top hat). For each question you will get 1 point if you answer it correctly, 0.5 points if you answer it incorrectly, and 0 if you do not attempt it. **I will drop your worst 20% responses.** Example: if there are a total of 40 questions asked, and you missed 3 questions and got 7 incorrect and 30 correct; I will drop the three 0's and five 0.5's. You will have a total score of 31/32. If you do not purchase Top Hat and thus do not attempt any of these questions, I will carry the weight of this assessment (5%) to your Final Exam.

Risk assessment online quiz (on Top Hat): Based on the risk assessment lecture, you will attempt an online quiz on Top Hat. This quiz is 5% of your grade. If you decide not to purchase Top Hat and thus gets zero on this, I will carry the weight of this quiz (5%) to the final exam.

Sept 25, 8:30 A.M. -11:30 P.M.

Death at the Wedding: 10%

This will be an analysis of the lecture on the topic of food borne illnesses. Use your knowledge of food borne illnesses to determine the cause of death of the bride at a wedding in the UK in the late 19th century. The expected length will be approximately 500 to 600 words. A discussion forum will be available on UMLearn where you will discuss this case study with your group members. 2% marks will be awarded for your participation in the discussion, and the remaining 8% marks will be awarded for your individual report.

Discussion date: October 16, 8:30 A.M. -October 18, 8:30 A.M.

Report Due date: 23/10/2018. Please submit it on UMLearn.

Midterm exams: 40%

Multiple choice questions.

Midterm I: from Introduction to biological hazards(25%; **18/10/2018**).

Midterm II: from Food preservation to Food safety trends: Organic foods. (25%; **22/11/2018**).

Final exam: 25%

Short answer, short essay, multiple choices, fill the blank, true/false and/or matching exams.
To be scheduled by the Registrar's office. TBD.

Assignment Grading Times

Your assignments will be marked and returned to you within an appropriate time. At this time there are 186 students registered on this course and we aim to return your marked assignments within one week of submission, but this may not always be possible.

Assignment Extension and Late Submission Policy

Assignment extensions will only be granted in cases of genuine need. You will need to talk to me in person as soon as possible if you require an extension. It is impossible to specify all occasions that might warrant an extension, but the death or funeral of a close relative would be a good reason, the death of a friend's pet dog would not.

Late submissions will be marked, but do not expect a prompt return of the work. This is a large class with only one instructor and two grader assistants, and work that is not submitted on time disrupts the timely assessment and return of assignments. Late submission will incur a deduction of 5% for each weekday that the assignment is submitted after the deadline, unless an assignment extension has been permitted by me in advance of the deadline.

Other useful stuff that other instructors will have given you as well, but at least with electronic documents we don't have to cut down a rain forest!

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 201 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.

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>

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 <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 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 <http://umanitoba.ca/student/health-wellness/welcome.html>

Katie.Kutryk@umanitoba.ca

469 University Centre
(204) 295-9032

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 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, 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 http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-_2013_10_01.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