

NUTR*4510 Toxicology, Nutrition and Food

Fall 2022 Section(s): CO1

Department of Human Health and Nutritional Sciences Credit Weight: 0.50 Version 1.00 - September 07, 2022

1 Course Details

1.1 Calendar Description

This course examines the role of foods, herbals and nutraceuticals as sources of antinutrients, natural toxins and environmental contaminants. The impact of toxic exposures on nutritional status, the impact of nutritional status on safe metabolism of toxins, and the use of this knowledge in the design of functional foods are also examined. Assessing the risk of genetically modified foods and radioactive contamination of a food supply.

Pre-Requisites: NUTR*3210

1.2 Timetable

Classes are scheduled Tuesday and Thursdays from 11:30am - 12:50 pm (Eastern Standard Time). The course will have in-person lectures on **Tuesdays only**, and pre-recorded lectures for **Thursday classes**, posted on CourseLink under ZOOM >> cloud recordings. Please contact Dr. Ionescu if you have internet accessibility issues for an accommodation.

Students are encouraged to view the lectures during the scheduled lecture time to help maintain a regular schedule. Questions and discussions of recorded lectures will be discussed during following class (modified flipped class format). All lecture videos (**Thursdays only**) and corresponding course notes will be posted on Courselink at least one day prior to each lecture.

Office hours will be available by appointment in-person or via Zoom and/or Teams.

Important dates and assessment information is provided elsewhere in the Course Outline.

Please note the proposed course format, schedule or location for the Fall 2022 semester may change up to the first day of classes due to personnel, resource, and public health circumstances and if conditions cannot be met to ensure the safety

of our students and instructors. Continue to watch the Student Planning website as format information could be updated until the first day of classes.

1.3 Final Exam

<u>There will be an in-person final exam on</u> December 8, 2022 from 2:30 - 4:30 pm. Location of exam TBD, please consult Web Advisor often for current updates.

2 Instructional Support

2.1 Instructional Support Team

Instructor:	Adrian Ionescu PhD
Email:	ionescu@uoguelph.ca
Office:	SSC 2312
Office Hours:	Office hours will be held by appointment in-person or via
	Zoom and/or Teams.

Office Hours Details:

- Students wishing to have a one-on-one meeting to discuss confidential matters may contact Dr. Ionescu to set up an appointment.

- Course content questions will be discussed during individual meetings or may be set up as a group meeting, where students may benefit from inquiries and discussions by other students.

2.2 Teaching Assistants

Teaching Assistant (GTA):	Sandhya Sahye-Pudaruth
Email:	ssahyepu@uoguelph.ca
Office Hours:	Please use the Discussion Board in Courselink with your
	course content questions and/or assignment questions and
	both the TA and Dr. Monk will respond.

3 Learning Resources

3.1 Required Resources

Courselink (Website)

https://courselink.uoguelph.ca

The course outline, lecture videos and notes will be posted on Courselink. Students can submit questions on the course discussion board, and your TA (Sandhya Sahye-

Pudaruth) or Dr. Ionescu will provide guidance.

There are no other resources required for this course.

Students are encouraged to check for announcements in CourseLink for all reminders, updates and important information. Please ensure that your notifications for new content posted to CourseLink in NUTR*4510 in enabled.

4 Learning Outcomes

Course philosophy:

The fields of nutrition and toxicology both elicit strong feelings in the popular press and in the general public. People with little expertise express strong viewpoints on nutrition and toxicology, and the spread of misinformation is enabled by the internet.

This course is designed to provide students with some fact-based knowledge, but also the tools to assess common forms of research in the fields of nutrition and toxicology, and to make critical judgements and accurate interpretations of research results.

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

- 1. the principle concepts of nutritional sciences and toxicology, and the ways that these two disciplines interact
- 2. that nutritional status may alter the absorption, metabolism and excretion of xenobiotic compounds.
- 3. that xenobiotic and drug exposure may impact on nutritional status.
- 4. to assess the diet as a vector for the delivery of natural and synthetic xenobiotics
- 5. to assess the relationships between diet and the risk of various cancers
- 6. to recognize different forms of research models, and to characterize their strengths and weaknesses
- 7. problem solving and critical thinking skills
- 8. to effectively communicate ideas and arguments in graphic and written form
- 9. interpret data in class, in homework assignments and on exams
- 10. to work in a group environment to practice scientific literature critiques and discuss current topics in nutritional toxicology of interest

5 Teaching and Learning Activities

5.1 Lecture

Topics:In-person lectures (Tuesdays only) will be held at 11:30
am - 12:50 pm in RICH 2520.Asynchronous lectures (Thursdays only) will be pre-
recorded in ZOOM and will be available in CourseLink
under ZOOM >> Cloud Recordings. Corresponding
course notes (and Thursday recordings) will be provided
online and posted in Courselink prior to the scheduled
lecture time (Tuesdays/Thursdays 11:30am - 12:50pm,

Eastern Standard Time).

5.2 Course Concepts

There are 3 main concepts that summarize the interaction between nutrition and toxicology. These include:

1) The role of the diet as a source ("vector") of natural or man-made toxins.

While most people are aware, and perhaps worried, about the occurrence of toxic substances in foods, there are a number of misconceptions about the source of these risks. The greatest fears of the general public are of artificial or imposed risks, like pesticide residues and genetically modified foods. In reality, the bulk of toxic substances in our diet are natural plant or animal products, or are formed during the cooking of foods. Plants raised for pest resistance and grown without artificial pesticides may produce high levels of natural products that pose risk, or benefits, to consumers. Even essential nutrients may act as xenobiotics if consumed unwisely. The expanding and poorly regulated nutraceutical and herbal industries are creating new opportunities for diet-related poisonings.

2) The effect of nutritional status on toxin metabolism and pathology.

Our ability to metabolise dietary xenobiotics is often dependent on our nutritional status, and our exposure to other dietary compounds. Diets high in fruits and vegetables are known to decrease cancer risk, and much attention has been focused on nutrients like vitamin C and beta-carotene. Current knowledge, however, is pointing towards non-nutrient phytochemicals as the most potent anti-carcinogenic components of fruits and vegetables. While many plant products that appear to decrease the risk of cancer or CVD are marketed as "antioxidants", we find that the phytochemicals are likely functioning through modulation of xenobiotic metabolism.

3) The effect of toxin exposure on nutritional status.

Chronic exposure to xenobiotics such as ethanol, or other drugs, will also have a direct effect on nutritional status. This creates a very complex interaction between the nutrients and toxins that are present in our diet and impact on our short and long term health.

5.3 Course Content

1. Nutrition and Xenobiotic Metabolism Overview (includes content on Research Study Designs)

- 2. Phase I Metabolism/"Functionalization"
- 3. Phase II Metabolism/"Conjugation"
- 4. Chemical Carcinogens in the Diet
- 5. Toxic Factors in Fish
- 6. Nutritional Status and Alcohol

- 7. Nutrition and Drug Toxicity
- 8. Toxicity and Nutrients
- 9. Natural Toxins in Plant Products
- 10. Synthetic Pesticides and Food

5.4 Important Dates

Form of Assessment	Weight of Assessment	Due Date of Assessment	
Learning Group Literature Critique Discussions/Feedback and	3 x 5%	Throughout the course, dates posted on	
Reflection	**Optional Assignments. The weight is automatically added to the final exam for any of these 5 short assignments not completed.	,	
CBS Career Readiness Module & Reflection Assignment	5%	Submit to the Dropbox on or before the last day of classes	
Scientific Literacy Quizzes	2 x 2.5%	Dates posted in Courselink	
Scientific Literacy Skill Reflection Assignment	5%	Submit to Dropbox on or before the last day of class	
Midterm Exam	25%	Oct 18 th	

Abstract Critique Test	15%	Nov 10 th
Final Exam	30%	Dec 8th (2:30-4:30pm)

6 Assessments

6.1 Marking Schemes & Distributions

Form of Assessment		Due Date of Assessment	Course Content/Activity	Learning Outcome Addressed
Abstract Critique Test	15%	Nov 10th Online during scheduled class time using Respondus	Research interpretation	6,7,8
Midterm Exam	25%	Oct 18th Online during scheduled class time using Respondus	Lecture content	1,2,3,6,7,8,9
Learning Group Literature Critique Discussions/Feedback	3 x 5%	All semester	Group Literature Critique and	6,7,8,9,10

and Reflection			Research Interpretation	
**OPTIONAL				
Final Exam	30%	Dec 8 In-person	Lecture content, Research interpretation	1,2,3,4,5,6,7,8,9
Scientific Literacy Skill Reflection Assignment		All semester Complete Scientific Literacy Quiz #1 and #2, then complete the reflection questions. Submit to Dropbox on or before the last day of classes	interpretation	6,7,8,9
CBS Career Readiness Module & Reflection Assignment	5%	or before the	Career Development Activity & Lecture	1

	classes	Content	
--	---------	---------	--

6.2 Assessment Details

Abstract Critique Test (15%)

Date: Thu, Nov 10, Online

Learning Outcome: 6, 7, 8

Test will be completed online in Courselink using Respondus lockdown browser. Students will answer literature interpretation and abstract critique short answer questions that are similar to the questions and format of the literature critique discussions and will be held during scheduled lecture time.

Midterm Exam (25%)

Date: Mon, Oct 18, 11:30 AM - 12:50 PM, During Scheduled Lecture Time In Class **Learning Outcome:** 1, 2, 3, 6, 7, 8, 9 Online midterm exam using Respondus.

The midterm exam will cover units 1-3 of the course content and will be held during scheduled lecture time.

Final Exam (30%)

Date: Thu, Dec 8, 2:30 PM - 4:30 PM, In-Class Final Exam **Learning Outcome:** 1, 2, 3, 4, 5, 6, 7, 8, 9

In-Class final exam is <u>cumulative</u> but will **focus on course content** <u>not</u> **tested on the midterm exam**. It is important to note that units 1-3 (tested on the midterm exam) represent the foundation of the course, and therefore, are required for understanding of the remainder of the course. The final exam will include multiple choice and literature interpretation short answer questions.

Learning Group Literature Critique Discussions (15%)

Learning Outcome: 6, 7, 8, 9, 10

3 optional assessment, each worth 5% = total 15% of the final grade.

The weight of any missed Learning Group Literature Critique Discussion Assignments will be automatically moved to the weight of the final exam. Students do not need to explain their decision to not submit the optional assignment to the instructor.

Each student will be assigned to an Online Learning Group and each of the 3 assignments will have a dedicated discussion board for each online learning group in Courselink. Students will have a minimum of 7 days to complete the literature critique, post their answers and interact with their learning group members to discuss critique points for each assigned scientific abstract. Students are expected to BOTH post their ideas and provide feedback to each other (minimum of 2 feedback posts per student), followed by a reflection on the points raised by their peers to improve their answers to the critique questions. At the end of the 7 day peer discussion period students will have 24 hours to submit their revised assignment using the peer feedback to the Dropbox in Courselink. No

late submissions will be accepted. Students are encouraged to NOT wait until the end of the discussion period to provide feedback to their peers. Providing timely feedback is part of appropriate professional behaviours and expectations in the workplace.

The purpose of this assignment is to encourage you to engage in discussion with your online learning group about scientific abstracts related to the course content.

Each feedback post should be <u>approximately</u> 100 words, should contribute to the discussion in a meaningful way and provide useful and encouraging feedback (which will be discussed more in lecture video). For scientific abstracts students should focus on identifying strengths and limitations of the study design and/or their ideas for designing a follow up research question and experimental study design that builds on the content in the assigned abstract. **Students should post their original ideas AND reply to a minimum of 2 other students posts with suggestions for how to improve what has been proposed in the original students post or by sharing alternative approaches.** These assignments are similar to the literature critique/interpretation questions that are part of the Abstract Critique Test and Final Exam in the course. Each students REVISED answers to the abstract critique questions (following reflection about the peer feedback received) are due in the Dropbox in Courselink within 24 hours of the end of the online peer review period.

Abstract 1 - September 22 - 29 Peer Discussion/Feedback; Dropbox Submission Due October 1 at 11:59 PM...**NOTE** that September 30th is the National Day for Truth and Reconciliation..

Abstract 2 - October 24 - October 31 Peer Discussion/Feedback; Dropbox Submission Due November 1 at 11:59 PM.

Abstract 3 - November 7 - 14 Peer Discussion/Feedback; Dropbox Submission Due November 15 at 11:59 PM.

CBS Career Readiness Module & Reflection Assignment (5%)

Date: Submit to Dropbox on or before the last day of classes **Learning Outcome:** 1

The assignment has two parts and details are posted on Courselink.

Part 1: Access and complete the CBS Career Readiness Module in Courselink

Part 2: Write a reflection on the training resources that were provided and submit to the Dropbox.

To maximize the personal benefits of this assignment and avoid scheduling conflicts later in the semester <u>students are strongly encouraged to complete this assignment</u> <u>early in the semester</u>.

Scientific Literacy Quizzes and Reflection (10%)

Date: Quiz completed twice (at the start and end of the semester) **Learning Outcome:** 6, 7, 8, 9

This Assignment has 2 parts and combined is worth 10% of the final grade. The intention of the assignment is to assess practical scientific literacy skills at the start and end of the semester so that each student can see a change/growth in skill development during the semester and reflect on their skill development.

Part 1 (5%): Students will complete two Scientific Literacy Quizzes, one at the start of the semester and another quiz near the end of the semester.

The quizzes will use Respondus lockdown browser with the webcam enabled. This is a basic scientific literacy skill test that students cannot study for in advance. The individual scores on each quiz are not important, the development of skills over time is the focus of this activity.

Scientific Literacy Quiz #1 - available between September 12 - 19 (closing at 11:59PM). Worth 2.5% of final grade.

Scientific Literacy Quiz #2 - available between November 17 - 24 (closing at 11:59PM). Worth 2.5% of final grade.

NOTE: students will not receive their results from the two quizzes until November 27th, which is required to complete part 2.

Part 2 (5%): Students will review their results from the two Scientific Literacy Quizzes and write a short reflection that is specific to their individual skill development identifying the skills they are acquiring readily and/or scientific literacy skills they may be having difficulty acquiring. The intention is to personalize skill development and build confidence in students individual abilities. Reflection questions will be posted on Courselink.

The reflection is due on or before the last day of classes (December 2 at 11:59PM in the Dropbox). The reflection is worth 5% of the final grade in the course

6.3 Final Exam

The in-person final exam is cumulative but will focus on course content not tested on the midterm exam (approximately 90% of questions on the final exam). This will include multiple choice and literature interpretation short answer questions.

December 8, 2022 @ 2:30 - 4:30pm

7 Course Statements

7.1 Grading

Missed assessment deadlines should be discussed with Dr. Ionescu and accommodations will be made that could involve an alternate assessment date, an extension of a deadline or shifting the value of a missed assessment onto another assessment or the final exam. **Decisions will be made based on assessing the course learning outcomes and at the instructors discretion**. A missed final exam should be addressed with the students Academic Counselor.

7.2 Communication with Students

I will communicate with the class weekly during office hours by appointment, which will be held in-person or online using ZOOM and/or Teams. This is an opportunity for students to ask questions about the course content and get clarification about concepts. Students can also request a confidential meeting to discuss private matters.

Lectures and pre-recorded ZOOM videos (Thursdays only) will be posted prior to each lecture. Students are encouraged to view course lectures during the scheduled time.

Students are encouraged to use the Discussion Board for course content questions and to attend office hours for extra support. Emails and Discussion Board posts will be replied to ASAP by either the instructor or the TA.

Weekly reminders about the course schedule and upcoming deadlines will be posted on CourseLink in "Announcements"

7.3 Use or Respondus Lockdown Software

This course currently plans to use Respondus Lockdown software for some assessments (e.g. quizzes, tests). Your instructor is aware that some students have expressed concerns about the use of this exam invigilation software. The University Administration has approved

the use of Respondus Lockdown software and other online monitoring platforms that use artificial intelligence for remote invigilation.

Dr. Ionescu is committed to an equitable and accessible assessment experience, please contact him if you have concerns.

Information about Respondus

Respondus LockDown Browser is a locked browser for taking quizzes/exams in CourseLink. It will be required to take the scientific literacy quizzes, abstract critique test, midterm and final exam in this course. It prevents you from printing and copying; using other operating software; using search engines (e.g., going to another URL); communicating via instant messaging; and it blocks non-web-related software (e.g., Adobe PDF, Microsoft Word).

Respondus Monitor is a companion application for LockDown Browser that uses webcam and video technology to ensure academic integrity during online exams. The software captures video during the exam and allows the instructor to review the video (only if necessary) by the instructor after the exam is completed.

In order to use Respondus LockDown Browser and Monitor, you must meet the following technical requirements so that you can take the tests. A practice test is available in CourseLink under the "Quizzes" tab.

1. Operating Systems: Windows 10, 8, 7; Mac OS X 10.10 or higher.

2. Memory: Windows 2 GB RAM; Mac 512 MB RAM.

3. For Mac users: Safari must function properly on the computer.

4. Mac users must have Adobe Flash Player installed to Safari, even if a different browser is normally used.

5. Functioning webcam and microphone. The webcam and microphone can be built into your computer or can be the type that plugs in with a USB cable. (You will be required to do an environment scan of your room, so please ensure you can move your computer, laptop or webcam for this scan.)

6. A broadband Internet connection. It is recommended that you access the Internet via a wired connection.

For more information please visit the OpenEd Technical Support page: https://opened.uoguelph.ca/instructor-resources/technical-considerations

If you have any concerns about meeting system requirements, contact CourseLink Support. They will work with you to find alternative solutions or make alternative arrangements.

Phone: 519-824-4120 ext. 56939 Toll Free: 1-866-275-1478 (Canada and USA) Email: courselink@uoguelph.ca

8 Department of Human Health and Nutritional Sciences Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

• Make an appointment with a program counsellor in your degree program. <u>B.Sc.</u> <u>Academic Advising or Program Counsellors</u>

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. http://www.learningcommons.uoguelph.ca/
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: http://www.lib.uoguelph.ca/getassistance/studying/chemistry-physics-help and http://www.lib.uoguelph.ca/getassistance/studying/math-stats-help

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. https://www.uoguelph.ca/counselling/
- Student Health Services is located on campus and is available to provide medical attention. https://www.uoguelph.ca/studenthealthservices/clinic
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. http://www.selfregulationskills.ca/

8.4 Personal information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) http://www.e-laws.gov.on.ca/index.html. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information policies please see the Undergraduate Calendar.

(https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml)

8.5 Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning as they become available.

9 University Statements

9.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml

Graduate Calendar - Grounds for Academic Consideration https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and

alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml

Graduate Calendar - Registration Changes https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-regregchg.shtml

Associate Diploma Calendar - Dropping Courses https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml

9.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website https://www.uoguelph.ca/sas

For Ridgetown students, information can be found on the Ridgetown SAS website https://www.ridgetownc.com/services/accessibilityservices.cfm

9.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community-faculty, staff, and students-to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of

their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08amisconduct.shtml

Graduate Calendar - Academic Misconduct https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml

9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars https://www.uoguelph.ca/academics/calendars

9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

9.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major

assignment).

9.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-yoursafe-return/
- https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.