

Course Outline – Agriculture and Food Systems: Critical Conversations

General Information

Course #:	FN3355B
Section #:	001
Term:	Winter
Year:	2024-25
Delivery:	In-person

Instructor Information

Name:	Dr. Matthews, PhD, RD, P.H.Ec.
E-mail:	jmatth22@uwo.ca
Office hours:	Monday
Office location:	Virtual office hours
Office appointments:	Please email me to arrange an appointment

Course Description

This course will cover the processes and practices associated with food production in Canada. Appreciation of the whole food system (i.e., production, transformation, distribution, access, consumption, and food waste management), and the multiple aspects of sustainability, will provide a solid foundation for evidence-based conversations in future professional practice.

Prerequisite(s): [Foods and Nutrition 1070A/B](#) and [Foods and Nutrition 1241A/B](#) or the former Foods and Nutrition 1030E and [Foods and Nutrition 2241A/B](#).

Extra Information: 3 hours.

Course Weight: 0.50

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Required Course Materials

The Required Reading List is posted on OWL Brightspace. There is **no cost** associated with any of the required reading materials (which include journal articles, videos, and other resources).

Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Explain the role of RDs in agriculture.
2. Describe soils, climate, and agricultural products across Canada.
3. Value challenges facing farmers in Canada.
4. Formulate a deeper understanding of Indigenous agriculture.
5. Summarize various farming techniques and explain why farmers choose specific approaches.
6. Justify the use of pesticides by all farmers, including organic.
7. Assess agriculture's role in food security.
8. Evaluate strategies to address food waste.
9. Explain economic, social, and environmental sustainability related to food production.
10. Outline the role of grazing cattle in maintaining wildlife habitat and mitigating climate change.
11. Critique dietary guidelines in achieving sustainable food systems and health for all.
12. Demonstrate understanding of practices related to biosecurity and animal health and welfare.
13. Explain traceability and food safety practices at home and on the farm.
14. Explain how technology in agriculture contributes to food production.
15. Appraise trends in the future of agriculture.
16. Support the role of food and nutrition professionals in science communication.
17. Explain production practices and challenges associated with various farm products.
18. Demonstrate basic skills necessary for professional performance (e.g., time and workload management; effective and respectful written, oral, and interpersonal communication; leadership; self-reflection; ethics and judgment; independent literature searching, retrieval, and management).

Integrated Competencies for Dietetic Education and Practice (ICDEP)

(Specific to the Brescia School of Food and Nutritional Sciences, Honors Specialization in Nutrition and Dietetics)

As an accredited dietetic program in Canada, we are required to meet the ICDEP. These competencies consist of 7 interrelated Domains (areas) of Practice Competencies: Food and Nutrition Expertise, Professionalism and Ethics, Communication and Collaboration, Management and Leadership, Nutrition Care, Population Health Promotion, and Food Provision. This course is designed to ensure that students who complete the course as outlined obtain certain competencies in the above domains. This is required to meet entry level dietetic practice.

For more information on the ICDEP please visit the UWO OWL FN UNDERGRADUATE RESOURCES AND INFORMATION site.

Teaching Methodology and Expectations of Students

Students are expected to search for and read assigned articles **before** class (Reading List posted on OWL Brightspace). Attendance at lectures and active engagement in class discussions are required.

Copyright and Intellectual Property

PowerPoint lecture slides and notes, lists of readings, in-class activities, assignment guidelines, and other components of the course materials are typically the intellectual property of the instructor.

Unauthorized reproduction through audio-recording, videorecording, photographing, sharing on social media, or posting on course-sharing websites is an infringement of copyright and is prohibited. Such action may be considered a Code of Conduct violation and lead to sanctions.

Use of Generative AI

For this course, students may **not** use generative AI (e.g., Chat GPT, QuillBot) for graded course assessments. Use of generative AI will be considered a scholastic offence which may be subject to the penalties outlined in the academic calendar. All submitted work must reflect your own thoughts and independent written work.

Evaluation

Component	Weight	Date/Time	Learning Outcomes – Students will be able to:
Mid-term 1 Mixed format	30%	Tuesday, Jan. 28, 2025 8:30am-10:30am	<ol style="list-style-type: none"> 1. Explain the role of RDs in agriculture. 2. Describe soils, climate, and agricultural products across Canada. 3. Value challenges facing farmers in Canada. 4. Formulate a deeper understanding of Indigenous agriculture. 5. Summarize various farming techniques and explain why farmers choose specific approaches. 6. Justify the use of pesticides by all farmers, including organic. 7. Assess agriculture's role in food security. 8. Evaluate strategies to address food waste. 9. Explain production practices and challenges associated with various farm products.
Mid-term 2 Mixed format	30%	Tuesday, Mar. 4, 2025 8:30am-10:30am	<ol style="list-style-type: none"> 1. Explain economic, social, and environmental sustainability related to food production. 2. Outline the role of grazing cattle in maintaining wildlife habitat and mitigating climate change. 3. Critique dietary guidelines in achieving sustainable food systems and health for all. 4. Explain production practices and challenges associated with various farm products.
Final Exam Mixed format	40%	Apr.11-30 TBA 3 hours	<ol style="list-style-type: none"> 1. Demonstrate understanding of practices related to biosecurity and animal health and welfare. 2. Explain traceability and food safety practices at home and on the farm. 3. Explain how technology in agriculture contributes to food production. 4. Appraise trends in the future of agriculture. 5. Support the role of food and nutrition professionals in science communication. 6. Explain production practices and challenges associated with various farm products.

These evaluations are considered central to the assessment of learning outcomes in this course. Thus, students must provide documentation for any absence from the mid-terms or final exam. Please see [FHS Undergraduate Test and Exam Policy](#). **Dates for the makeup mid-term examinations are Sunday, February 9, 2024, from 1 PM – 3 PM for Mid-term 1 and Sunday, March 16, 2024, from 1 PM – 3 PM for Mid-term 2.** Per University policy, makeup examinations for final exams (i.e., during the April exam period) are held on the second Thursday in May, excepting when a change to this date is approved by the Associate Dean.

Students granted Academic Considerations for missed essential requirements will be required to complete these components with the next offering of the course. In such cases, the student will receive a grade of Incomplete (INC) and their maximum course load may be reduced during the term in which they complete their course requirements.

OWL Brightspace

All course material will be posted to OWL Brightspace: <https://westernu.brightspace.com/>. If students need assistance with OWL Brightspace, you can seek support on the [OWL Brightspace Help](#) page. Alternatively, you can contact the [Western Technology Services Helpdesk](#) online or by phone at 519-661-3800 or ext. 83800 for technical support. Current versions of all popular browsers (e.g., Safari, Chrome, Edge, Firefox) are supported with OWL Brightspace; what is most important is that you update your browser frequently to ensure it is current. All JavaScript and cookies should be enabled.

Course Content

	Class	Date		Topics (Required Reading List posted on OWL Brightspace)
Module 1	1	Tues., Jan. 7	8:30 – 10:30	Introduction to course; RDs in agriculture
	2	Thurs., Jan. 9	8:30 – 9:30	Agriculture in Canada; soil; Indigenous agriculture
	3	Tues., Jan. 14	8:30 – 10:30	Organic dairy farming
	4	Thurs., Jan. 16	8:30 – 9:30	Farming techniques; pests and pesticides
	5	Tues., Jan. 21	8:30 – 10:30	Beekeeping
	6	Thurs., Jan. 23	8:30 – 9:30	Food security; food waste
	7	Tues., Jan. 28	8:30 – 10:30	Mid-term 1 (30%) Covers classes 1 – 6
Module 2	8	Thurs., Jan. 30	8:30 – 9:30	Economic sustainability
	9	Tues., Feb. 4	8:30 – 10:30	Local food; market gardening; fruits and vegetables
	10	Thurs., Feb. 6	8:30 – 9:30	Social sustainability
	11	Tues., Feb. 11	8:30 – 10:30	Grains and oilseeds; grain marketing and trading
	12	Thurs., Feb. 13	8:30 – 9:30	Environmental sustainability
				Spring Reading Week – Feb. 15-23 – no class
	13	Tues., Feb. 25	8:30 – 10:30	Cattle and wildlife habitat
	14	Thurs., Feb. 27	8:30 – 9:30	Dietary guidelines and sustainable food production
	15	Tues., Mar. 4	8:30 – 10:30	Mid-term 2 (30%) Covers classes 8 – 14

Module 3	16	Thurs., Mar. 6	8:30 – 9:30	Biosecurity; turkeys; chickens
	17	Tues., Mar. 11	8:30 – 10:30	Animal health and welfare; laying hens
	18	Thurs., Mar 13	8:30 – 9:30	Food safety; traceability
	19	Tues., Mar. 18	8:30 – 10:30	Robotic dairy; supply management
	20	Thurs., Mar 20	8:30 – 9:30	Biotechnology
	21	Tues., Mar. 25	8:30 – 10:30	Agricultural technology
	22	Thurs., Mar 27	8:30 – 9:30	Climate change; future trends in agriculture
	23	Tues., Apr. 1	8:30 – 10:30	Pork; garlic
	24	Thurs., Apr 3	8:30 – 9:30	Role of FN professionals in science communication
		TBA	3 hours	Final exam (40%) Covers classes 16 – 24

FHS Common Course Outline Attachment

Support Services

There are various support services around campus, and these include, but are not limited to:

1. Academic Support and Engagement - <http://academicsupport.uwo.ca>
2. Wellness and Well-being - <https://www.uwo.ca/health/>
3. Registrar's Office -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- <http://www.uwo.ca/ombuds/>

The websites for Registrarial Services (<http://www.registrar.uwo.ca>), and the same for affiliated university colleges when appropriate, and any appropriate Student Support Services (including the services provided by the USC listed here: <http://westernusc.ca/services/>) and the Student Development Services, should be provided for easy access.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://www.uwo.ca/health/>) for a complete list of options about how to obtain help.

Statement on Gender-Based and Sexual Violence

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

Student Code of Conduct

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be

imposed and set out the disciplinary procedures that the University will follow. For more information, visit <https://www.uwo.ca/univsec/pdf/board/code.pdf>

Absence from Course Commitments

Students must familiarize themselves with the Policy on [Academic Consideration – Undergraduate Students in First Entry Programs](#)

Students missing course work for medical, compassionate, or extenuating circumstances can request academic consideration by completing a request at the [central academic consideration portal](#). Students are permitted one academic consideration request per course per term **without** supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g., December and April exams) and for practical laboratory and performance tests (typically scheduled during the last week of the term).

Students should also note that the instructor may **designate** one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Academic consideration requests may be denied when flexibility in assessment has already been included. Examples of flexibility in assessment include when there are assessments not required for calculation of the final grade (e.g. 8 out of 10 quizzes), when there is flexibility in the submission timeframe (e.g. 72 hour no late penalty period), or when timed assessments (e.g., quizzes) are available over an extended period of time (e.g., when you are given a 72 hour time period to start – and finish – the assessment).

Please note that any academic considerations granted in this course will be determined by the instructor of this course, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course syllabus. Supporting documentation for academic considerations for absences due to illness should use the [Student Medical Certificate](#) or, where that is not possible, equivalent documentation by a health care practitioner.

Accommodation for Religious Holidays

Students should review the policy for [Accommodation for Religious Holidays](#). Where a student will be unable to write examinations and term tests due to a conflicting religious holiday, they should inform their instructors as soon as possible but not later than two weeks prior to writing the examination/term test. In the case of conflict with a midterm test, students should inform their instructor as soon as possible but not later than one week prior to the midterm.

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examination dates. The Faculty

of Health Sciences has set School-specific dates for these Special Examinations. Please speak with your instructor about the date on which the Special Examination for this course will be held.

Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Plagiarism

Student work is expected to be original. Plagiarism is a serious academic offence and could lead to a zero on the assignment in question, a zero in this course, or your expulsion from the university. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging that the work belongs to him/her. Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (www.turnitin.com).

Use of Artificial Intelligence for the Completion of Course Work

Within this course, you may only use artificial intelligence tools (e.g., "ChatGPT") in ways that are specifically authorized by the course instructor. All submitted work must reflect your own thoughts and independent written work.

Re-submission of Previously Graded Material

Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Use of Statistical Pattern Recognition on Multiple Choice Exams

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#)

Correspondence Statement

The centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail

received from the University at their official university address is attended to in a timely manner. Students are further expected to attend to announcements presented through Brightspace, and to read emails generated in this way.

Use of Electronic Devices

During Exams

Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any electronic devices (e.g., cell phones, tablets, cameras, smart glass, smart watches, or iPods) during ANY tests, quizzes, midterms, examinations, or other in-class evaluations. **These devices MUST either be left at home or with your belongings at the front of the room. They MUST NOT be at your test/exam desk or in your pocket. Any student found with a prohibited device will receive an automatic grade of zero on the test or exam.**

During Lectures and Tutorials

Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class.

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.

Contingency Plan for an In-Person Class Pivoting to 100% Online Learning

In the event of a situation that requires this course to pivot to online content delivery, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on Brightspace for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Online Proctoring

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this

remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>.

Appealing a Grade Within this Course

You have the right to appeal any grade within this course. The grounds for a grade appeal may be one or more of: medical or compassionate circumstances, extenuating circumstances beyond the student's control, bias, inaccuracy, or unfairness. All grounds advanced in a request for relief must be supported by a clear and detailed explanation of the reasons for the request together with all supporting documentation.

Appeals generally proceed in this order:

1. Course instructor (informal consultation)
2. Department Chair (submission of written request)
3. The Dean of the Faculty (submission of written request)

In the case of perceived procedural unfairness, steps 2 and 3 are carried out within the Department and Faculty offering the course. In the case of extenuating medical or compassionate circumstances that impact on a grade, steps 2 and 3 are carried out within a student's Home Department and Faculty.

A request for relief against a mark or grade must be initiated with the instructor as soon as possible after the mark is issued. In the event that the instructor is not available to the student, or fails to act, or if the matter is not resolved satisfactorily with the instructor, a written request for relief must be submitted to the Chair of the Department within three weeks of the date that the mark was issued. In the case of a final grade in a course, the written request for relief must be submitted to the Chair of the department by January 31st (for first-term half courses) or June 30th (for second-term half courses or full-year courses).