



**AGRI 1510 Production, Distribution and Utilization of Agricultural Products**  
**Faculty of Agricultural and Food Sciences**

**University of Manitoba**  
**Faculty of Agricultural and Food Sciences**

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## COURSE DETAILS

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<b>Course Title &amp; Number:</b>	AGRI 1510: Production, Distribution and Utilization of Agricultural Products
<b>Number of Credit Hours:</b>	3
<b>Class Times &amp; Days of Week:</b>	M,W,F 10:30
<b>Location for classes/labs/tutorials:</b>	M,W Labs at 2:30 Rom 245 Ellis; T,R, F lab 2:30 220 Animal Science (note the computer lab the week of January 15 <sup>th</sup> will be held in ROOM 137 Ag (M,W,F) or ROOM 237 Ag (T,R)
<b>Pre-Requisites:</b>	None

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## Instructor Contact Information

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<b>Instructor(s) Name:</b>	Loreen Onischuk and Argenis Rodas-González
<b>Preferred Form of Address:</b>	Loreen Onischuk will respond to any civil form of address Argenis Rodas-González
<b>Office Location:</b>	Loreen Onischuk is located in Room 237 Animal Science Argenis Rodas-González is located in Room 229 Animal Science
<b>Office Hours or Availability:</b>	Loreen Onischuk's office hours are Monday to Thursday 8:30-10 You can also make appointments to meet at other times. I only check my e-mail once a day ( usually early) and so if you need to contact me in a hurry the phone is a better option Dr. Rodas-González will have office hours from 8:30 to 10:30 Tuesday and Thursday.
<b>Office Phone No.</b>	Loreen Onischuk - 204-474-9174 Argenis Rodas-González – 204-474-9523
<b>Email:</b>	<a href="mailto:Loreen.Onischuk@umanitoba.ca">Loreen.Onischuk@umanitoba.ca</a> <a href="mailto:Argenis.RodasGonzales@umanitoba.ca">Argenis.RodasGonzales@umanitoba.ca</a>
<b>Contact:</b>	Loreen Onischuk: I am usually on campus from 7:30 to 5:30 weekdays. You are welcome to try to contact me in person or via the phone during those times. E-mail will not be checked evenings or weekends. Rodas-González: If you want to contact me an email with the subject heading AGRI 1510 and your name is best, but you can see me after a class session. I expect to respond telephone and email queries within 24-48 hours (circumstances permitting)

during the week. I will not normally be checking my email or UM-Learn on weekends and holidays.

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## Course Description

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This course will expose students to the aspects of agriculture that follow primary production and will include confined animal production. Special emphasis will be placed on secondary processing, trade, marketing as well as quality and safety of the food supply. Scientific, technical, environmental and socioeconomic interrelationships will be addressed.

This is a required course for most students in the Faculty of Agricultural and Food Sciences and is especially beneficial to students without an agricultural background as it provides a foundation in the language of and an overview of the various sectors of agri-food industry. It focuses on confined animal production and on the processing of food products (plant and animal) to ensure safety and quality for the end consumer. It would also be a beneficial course for non Agricultural and Food Science students in that it would give them the basics to understand some of the issues that currently surround agricultural food production practices.

## General Course Information

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This course is a Faculty Core course and brings many of the students who intend to pursue degrees within the Faculty of Agricultural and Food Science together to give them a broad overview of many of the current practices in the agri-food industry. The course and in particular the labs are also intended to bring into focus some of the challenges and opportunities facing the agri-food industry now and in the near future.

## Course Goals

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Know the principles of confined animal production.  
 Understand the technical aspects and value of postproduction agriculture practices.  
 Recognize the impact of the environmental and socioeconomic factors on the agri-food system.  
 Become aware of the value of groups in problem solving.

## Intended Learning Outcomes

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By the end of the course, the student should,

### 1. Know the principles of confined animal production

*Recognize confinement systems and the logic of their use in modern livestock production  
 Illustrate the application of nutrition, reproductive physiology, genetics and veterinary science for confinement rearing of animals.*

*Discuss the impact of marketing and regulations (including marketing agencies and payment protocol) on product availability and product quality*

*Recognize the critical points in production related to animal welfare and food safety.*

*Describe the impact of waste handling and disposal on the environment*

**2. Understand the technical aspects and value of postproduction agricultural practices.**

*Identify factors responsible for food quality (define quality)*

*Identify safety concerns/ regulations*

*Summarize the role of primary and secondary processing (including storage and transportation) in maintaining food quality and safety*

*Apply principles of preservation to specific commodities*

**3. Recognize the impact of environmental and socioeconomic factors on the agri-food system.**

*Discuss the role of Canada in the past, present and future of World Food Trade.*

*Describe an agri-food system.*

*Evaluate transportation of agricultural commodities in terms of availability, regulations, cost and product quality*

*Recognize the benefits and pitfalls in using models to work within systems.*

*Express the impact of primary production practices on food quality and use.*

*Illustrate the impact of postproduction processing and by-product formation on the environment*

*Illustrate the power of consumers/population dynamics in determining trends in agri-food production.*

**4. Become aware of the value of groups in problem solving**

*Work effectively in groups.*

*Respect differing opinions.*

*Communicate effectively within the group.*

## Using Copyrighted Material

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**Example:** 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](mailto:um_copyright@umanitoba.ca).

## Recording Class Lectures

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Loreen Onischuk and Argenis Rodas-González 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. Course materials (both paper and digital) are for the participant's private study and research.

## Textbook, Readings, Materials

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Required textbook – None

### Library Material:

The following books, which are available in the libraries, provide background information that may help you with the course.

Agricultural Institute of Canada. 1989. Canada Choice: Economic, Health and Moral Issues in Food from Animals. Sci HD 9424 C32 H357 1989.

Graham, H.D. (Ed.) 1980. The Safety of Food. AVI Pub. Co. Sci TX 531 S23 1980.

Ont. Inst. Prof. Agrologists. 1991. What Everyone should Know about Food Safety. Edited by Hirshorn, S. Sci RA 601 W42 1991.

Hubert, William T. 1991. Food Safety and Quality Assurance. Foods of Animal Origin. Ames, Iowa State Univ. Press. Sci. RA 601 H82 1991.

Karel, M., O.R. Fennema and D.B. Lund. 1975. Principles of Food Science Part II. Physical Principles of Food Preservation. M Dekker. Sci and Dafoe TP 371.2 K37 1975.

Potter N.N. 1986. Food Science. AVI Pub. Co. Sci TP 370 P58 1986.

Martin, J., J. Hudson and B.A. Young. 1993. Animal Production in Canada. University of Alberta. Sci HD 9424 C22 A54 1993.

The following Journals may also represent a source of valuable information:

Journal	Call NO	Journal	Call NO
Agricultural Sci.	630 A275 SCI	Agriculture Ecosystems & Env	630 A2804
Animal Production	636.05 A598	British J. Nutr.	640 B77 Jo Nu
British Poultry Sci	636 505 B777	Can. J. Anim. Sci.	636 C16 Jo An
Crit. Rev. Food Sci. Nutr	660 C42 Ru	Dairy Field	637 D147 F1
Dairy Herd Management	637 D147 4 He Ma	Dairy Herd Workshop	637 D147 4 He Wo
Domestic Anim.	590 D712 An En	Egg Industry	636 P864 Tr

## Endocrinology

Feedstuffs	330 F32	Food Res. Int.	660 C16 In Jo
Food Technology	641.05 I73	Grain Transportation Update	380 G7613 Tr Up
Grass and Forage Sci	633 B7775 Gr Jo	Hoards Dairy man	636 H651 Da
J. Anim. Sci	636.05 J826	J. Dairy Res.	637.05 J82 Dr
J. Dairy Sci.	637.05 J82 Ds	J. Food Safety	660 J826 Fo Sa
J. Food Protection	614.3205 I82	J. Range Management	630 J826 Ra
Lebensmittel-Wissenschaft & Technologie	660 L4915 Wi Te	Live Anim. Trade and Transport Magazine	382 L744 An Tr
Livestock Prod. Sci	636 L7586 Pr Sc	Modern Dairy	637.05 C16
Poultry Digest	636 P864 Dig Mt	Poultry Sci	636.505 P86
Sheep Canada Magazine	636 S5414 Can Mag	Shepherd	636 S548
World Animal Production	636 W8933 An Rev	World=s Poultry Sci. J.	636.505 W893

## Course Technology

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Class notes and lab manual will be posted on UMLearn. You should be aware that the notes posted are not complete and will require you to attend class to fill in key details. I will spend a few minutes on the first day of classes demonstrating where these can be found in UMLearn.

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 Disability Services. Student 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 student is on call (emergency) the student should switch his/her cell phone on vibrate mode and leave the classroom before using it. (adapted from ©[S Kondrashov](#). Used with permission)

## Class Communication

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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

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Be courteous and civil to me and to your fellow students.

### **Academic Integrity:**

See Schedule "A" Policies and Resources

## Students Accessibility Services

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### **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](mailto:Student_accessibility@umanitoba.ca)

## Expectations: You Can Expect Me To

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Be respectful of your opinions, questions and response to questions.

Make every reasonable effort to answer your questions,

Mark your tests in a fair, equitable and prompt fashion.



## 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.

Date	Class Content	Required Readings or any Pre-class Preparation	Evaluation
Jan 3 <sup>rd</sup> to 8 <sup>th</sup>	Introduction/review of Agri-Food system Modelling Sustainability	Always a good idea to review the posted notes prior to class	
Jan 10 <sup>th</sup> to 15 <sup>th</sup>	Confined Animal Agriculture Animal Production/Life cycles End products	Always a good idea to review the posted notes prior to class	
Jan 17 <sup>nd</sup> to January 29 <sup>th</sup>	Marketing products of animal production. Comparison of outputs from animal systems Description of marketing and regulatory factors that control production and quality Role of marketing agencies and how payment system works	Always a good idea to review the posted notes prior to class	Quiz worth 4% of final grade on January 19 <sup>th</sup>
January 31 <sup>st</sup> and February 2 <sup>nd</sup>	Food Safety - SA - Compare consumer and expert opinions - show incidence of food poisonings - Food microbiology - microbial problems - HACCP - Natural toxins - what are they and what is being done about them? - Pesticide/Food Additives- - Food Regulations/ Role of government		
TEST ONE Monday February 5 <sup>th</sup>	On sections taught by Onischuk to this point		Test worth 20% of final grade
February	Food Safety – Cont.		Quiz March 2 <sup>nd</sup> worth

<p>7<sup>th</sup> to March 7<sup>th</sup></p>	<p>Secondary processing - focus on preservation techniques and why effective - relate to energetics and costs within the system. - SA                      - Environmental conditions during storage and transportation (temperature, humidity)                      - heat treatments                      - Dehydration                      - Radiation treatments (microwaves and irradiation)                      - Packaging                      - Waste management</p>		<p>4% of grade</p>
<p>March 9<sup>th</sup></p>	<p>World Trade Canada main agricultural imports and exports</p>		
<p>March 12<sup>th</sup> Term Test Two</p>	<p>On sections taught by Rodas-González</p>		<p>Test Worth 20% of grade</p>
<p>March 14<sup>th</sup> – 19<sup>th</sup></p>	<p>World trade – discussion of free trade agreements and their stated purpose or role in Canada</p>		
<p>March 21<sup>st</sup> to 26<sup>th</sup></p>	<p>Examine technologies used in animal production                      Housing, feeding, breeding, health                      Waste handling                      Relate these to animal welfare etc.</p>	<p>Always a good idea to review the posted notes prior to class</p>	<p>of final grade on</p>
<p>March 28<sup>th</sup>-</p>	<p>Transport of agricultural commodities                      Types of transport and factors that affect the choice of one form over another                      Interprovincial and international barriers</p>	<p>Always a good idea to review the posted notes prior to class</p>	
<p>April 2-6</p>	<p>One commodity discussed both from an on farm and post farm gate perspective</p>		

## Laboratory Expectations

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The labs for this course (with the exception of the first) are group projects that require students to attend the labs they are registered for. There will be a total of 22% of the final grade given for labs ( 2% for the initial individual assignment) and 20% for four group presentations. The lab manual is available on UMLearn and we will discuss the expectations for each assignment as it approaches. The overall goal is to give students experience in group problem solving and to allow them to investigate current issues in agriculture.

## Lab Schedule

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Date	Lab Content	Required Readings or Pre-Class Preparations	Evaluation
January 15-18	A lecture on web searching and how to evaluate a web site will be given by the librarian. The students will then be required to complete and submit some searches and to write a short autobiography. NOTE: this lab will be given in Room 137 Ag (M,W,, F) or 237 Ag(T,R)		Two percent of final mark will be assigned to this assignment.
January 22-26	Orientation Lab.  Students will be placed in groups and will perform some group activities and be made aware of their topics for future presentations.		
January 29 <sup>th</sup> - February 2 <sup>nd</sup>	Student debates. ( see lab manual for topics and other details)		Worth 5% of final grades
February 5 <sup>th</sup> –February 9 <sup>th</sup>	NO LAB		
February 12 <sup>th</sup> to February 16 <sup>th</sup>	Tours of Glenlea Dairy, Swine and Beef Facilities PLEASE : dress appropriately		
February 19 <sup>th</sup>	NO LAB – Reading Week		

– February 23 <sup>rd</sup>			
February 26 <sup>th</sup> – March 2 <sup>nd</sup>	Presentations on Facility Evaluations		Worth 5% of final grades
March 5 <sup>th</sup> - 9 <sup>th</sup>	Time to prepare presentation on Industry Lab		
March 12 <sup>th</sup> – March 16 <sup>th</sup>	Industry Presentation		Worth 5% of final grades
March 19 <sup>th</sup> – March 23 <sup>rd</sup>	Time to Prepare Menu Poster		
March 26- March 30	NO LAB		Worth 5% of final grades
April 2-April 6	Give Poster Presentations		

### Course Evaluation Methods

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Due Date:	Assessment Tool	Value of Final Grade
January 19 <sup>th</sup> (Friday)	Quiz	4%
February 5 <sup>th</sup> (Monday)	Term test	20%
March 2 (Friday )	Quiz	4%
March 12 (Monday)	Term test	20%
January 26 <sup>th</sup> (Friday)	Lab assignment 1	2%
	Lab presentations (four in total)	20%
Date set by registrar's office	Final Exam	30%

### Grading

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Letter Grade	Percentage out of 100	Grade Point Range	Final Grade Point
A+	90-100		4.5
A	80-89.9		4.0
B+	75-79.9		3.5
B	67-74.9		3.0
C+	61-66.9		2.5
C	56-60.9		2.0
D	50-55.9		1.0
F	Less than 50		0

## Referencing Style

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The referencing style required is stated in the lab manual

## Assignment Descriptions

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Other than labs all marks will be given on closed book quizzes and exams. The expectations for lab presentations and the criteria for grading them is given in the lab manual.

## Assignment Grading Times

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Marks for each test and assignment should be posted within a week to a week and half of the completion of the test or assignment.

## Missed tests

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Missing tests is only allowed for medical or emergency situations. If you do miss a test ( with a valid reason) a make-up test can be given.

## Important dates

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January 19 <sup>th</sup>	Quiz ONE	4% of final grade
February 5 <sup>th</sup>	TERM TEST ONE	20% of final grade
March 2 <sup>nd</sup>	Quiz TWO	4% of final grade
March 12 <sup>th</sup>	TERM TEST TWO	20% of final grade
March 16 <sup>th</sup>	Voluntary Withdrawal date	