



# AGR\*1350 - Animal Production Systems and Industry: Dairy, Poultry and Egg

## Winter 2026 Course Outline

Section: 01

Credits: 0.50

## Land Acknowledgement: Guelph

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Métis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Métis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

## Calendar Description

This course is designed to introduce the student to animal production systems in Canada. Dairy, poultry and egg productions are covered throughout the value-chain. Topics include food, health and wellness (domestic animals and human), nutrition, housing, genetics, reproduction, husbandry practices and processing. The course includes laboratories and animal production unit tours.

**Prerequisite(s):** 1 of BIOL\*1050, BIOL\*1070, BIOL\*1080 BIOL\*1090

**Restriction(s):** AGR\*2350. Restricted to students in BSCH.ABIO, BBRM.EQM, and BSAG majors/minor.

**Department(s):** Department of Animal Biosciences

## Course Description

This course is designed to introduce the student to animal production systems in Canada and will focus on the dairy and poultry industries. Topics include food, health and wellness (domestic animals and human), nutrition, housing, genetics, reproduction, husbandry practices and processing. The course includes laboratories and animal production unit tours.

## Lecture Schedule

TuTh 4pm-5:20pm in WMEM\*103 (1/5 to 4/21)

## Lab Schedule

Day	Time	Location	Sections
Wednesdays	11:30-02:20	ANNU 110	101
Mondays	02:30-05:20	ANNU 110	102
Mondays	02:30-05:20	ANNU 102	103
Mondays	11:30-02:20	ANNU 110	104
Fridays	08:30-11:20	ANNU 110	105
Wednesdays	08:30-11:20	ANNU 110	106
Wednesdays	08:30-11:20	ANNU 102	107
Mondays	08:30-11:20	ANNU 102	108
Mondays	08:30-11:20	ANNU 110	109
Thursdays	08:30-11:20	ANNU 102	110
Tuesdays	08:30-11:20	ANNU 102	111

## Instructor Information

**Michael Steele**

Email: mastelee@uoguelph.ca

**Gregoy Bedecarrats**

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## Additional Support

### Teaching Assistants:

Breno Moreira: bmorei01@uoguelph.ca

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## Learning Resources

No specific text book is required for this course. All the lectures, laboratories and associated material will be provided and available on the CourseLink site.

## Cost of Textbooks and Learning Resources

Textbook / Learning Resource	Required / Recommended	Cost
Not Applicable		

## Field Trip Fees

For those courses in the Department of Animal Biosciences that have a field trip component - an associated fee for each field trip in the amount of \$20 applies. However, educational funding was secured for this semester and the cost of field trips will be covered by the department of Animal Biosciences.

## Course Learning Outcomes

1. Understand the basic structure of the industry and general production practices for dairy and feather species in Canada. Including topics relating to husbandry and management, nutrition, health, welfare, genetics, and reproduction of dairy cattle and poultry production.
2. Understand the role of livestock production systems in the Canadian and global economy.
3. Understand and critically evaluate current issues facing livestock agriculture in Canada.
4. Effectively communicate a position surrounding key issues in the livestock industry.
5. Understand how new technologies can advance livestock production practices.

## Lecture and Lab Schedule

Day	Date:	Topic	Activities	Due
Tue	1/6	Introduction of the course Introduction and History of the Dairy industry		No Lab (No Assignment)
Thu	1/8	Dairy Industry Overview		
Tue	1/13	Dairy Industry Overview		Ontario Dairy Research Centre Tour (Assignment #1)
Thu	1/15	Nutrition Transition cows		Ontario Dairy Research Centre Tour (Assignment #1)



Tue	1/20	Dairy Nutritionist Guest Lecture	Dairy Farm Tour (Assignment #2)
Thu	1/22	Milking, Housing and Management	Dairy Farm Tour (Assignment #2)
Tue	1/27	Housing and Calves	Dairy Physiology and Nutrition (Assignment #3)
Thu	1/29	Dairy Vet Guest Lecture	Dairy Physiology and Nutrition (Assignment #3)
Tue	2/3	ProAction Guest Lecture	Dairy Health and ProAction (Assignment #4)
Thu	2/5	Welfare and ProAction	Dairy Health and ProAction (Assignment #4)
Tue	2/10	Dairy and the Environment	Dairy Research (No Assignment)
Thu	2/12	Midterm Review Session	Dairy Research (No Assignment)
Tue	2/17	Winter Break	
Thu	2/19	Winter Break	
Tue	2/24	Midterm (In person)	No labs
Thu	2/26	Introduction to Poultry production / History of the Poultry Industry Anatomy/physiology of poultry	No labs
Tue	3/3	Anatomy/physiology of poultry Introduction to genetic selection in poultry	Anatomy/Physiology (Assignment #5)
Thu	3/5	Impact of genetic selection on production systems Nutrition: animal needs	Anatomy/Physiology (Assignment #5)
Tue	3/10	Nutrition: ingredients and feed formulation Catch up on previous chapters	Genetic selection (Assignment #6)
Thu	3/12	Insight from a geneticist / Insight from a poultry nutritionist	Genetic selection (Assignment #6)
Tue	3/17	Health challenges in poultry production systems Health management and preparedness	Fieldtrip to Feed Mill (Assignment #7)
Thu	3/19	Introduction to housing systems/ environmental management Impact of production systems on animal welfare	Fieldtrip to Feed Mill (Assignment #7)
Tue	3/24	Final catch up lecture Hot topics in Poultry production	Poultry Health and preparedness (Assignment #8)
Thu	3/26	Insight from a field expert on preparedness / Insight from a welfare expert	Poultry Health and preparedness (Assignment #8)
Tue	3/31	Overview of careers in the poultry industry	Poultry Management and welfare debate
Thu	4/2	Review session for the final	Poultry Management and welfare debate
Tue	4/7	No Class	
Thu	4/9	No Class	
Tue	4/14	No Class	
Thu	4/16	No Class	
Tue	4/21	No Class	

## Lab / Seminar Schedule

### Laboratory week 1 (Ontario Dairy Research Centre Tour)

Monday Jan 12 to Friday Jan 16 depending on sections

### Laboratory week 2 (Dairy Farm Tour)

Monday Jan 19 to Friday Jan 23 depending on sections



### Laboratory week 3 (Dairy Physiology and Nutrition)

Monday Jan 26 to Friday Jan 30 depending on sections.

### Laboratory week 4 (Dairy and Health and ProAction)

Monday Feb 2 to Friday Feb 6 depending on sections.

### Laboratory week 5 (Dairy Research)

Monday Feb 9 to Friday Feb 13 depending on sections.

### Laboratory Poultry Anatomy/Physiology (assignment #5)

Monday March 2 to Friday March 6 depending on sections.

From specimen on display, students are expected to identify key structures and organs. Lab quiz worth 5% of the final grade.

### Laboratory Poultry Genetic Selection (assignment #6)

Monday March 9 to Friday March 13 depending on sections.

Students will be presented with a set of eggs and expected to generate a breeding list based on phenotypic observations. Lab quiz worth 5% of the final grade.

### Fieldtrip to the Feed Mill (optional; assignment #7)

Monday March 16 to Friday March 20 depending on sections.

Students who opt out from the field trip will have access to a video recorded tour which will be sufficient to complete the quiz on the operation of a feed mill. Lab quiz worth 5% of the final grade.

### Laboratory Poultry Health and preparedness (assignment #8)

Monday Mar 23 to Friday Mar 27 depending on sections. Self directed assignment.

Students will be expected to design a biosecurity plan for a commercial operation. Lab quiz worth 5% of the final grade.

### Poultry Management and welfare debate (not assessed)

Monday Mar 30 to Friday Apr 3 depending on sections.

## Assessment Breakdown

Description	Weighting (%)	Due Date
Midterm	30%	Feb 24
Final Exam	30%	TBD
Lab Assignments	40%	Ongoing

## Assessment Details

### Midterm

#### Midterm

**30%**

Format: 1/2 multiple choice questions; 1/2 short answer questions

Content: Material covered during the Dairy portion of this course

Students who are unable to write during this time must contact the instructor via email at least two days prior to the exam to arrange for an alternative time. Students requiring accommodations are encouraged to contact Julie Kim (lab coordinator) at least 1 week prior to the exam to ensure these accommodations are applied to the online version of the exam.

**Course Learning Outcomes Assessed:** 1, 2, 3, 4, 5

### Exam

#### Final Exam

**30%**

Format: 1/2 multiple choice questions; 1/2 short answer questions



Content: Material covered during the poultry and egg portion of this course (not cumulative)

Students who are unable to write during this time must contact the instructor via email at least two days prior to the exam to arrange for an alternative time. Students requiring accommodations are encouraged to contact Julie Kim (lab coordinator) at least 1 week prior to the exam to ensure these accommodations are applied to the online version of the exam.

**Course Learning Outcomes Assessed:** 1, 2, 3, 4, 5

## Lab Assignments

### Lab Assignments

**40%**

There will be a total of 8 lab assignments through the duration of the course and all students will have 24 hours to complete following their assigned lab section. However, students are encouraged to complete their assignment during the laboratory session as TA help will be available (5% per assignment).

**Course Learning Outcomes Assessed:** 1, 2, 3, 4, 5

## Final Exam

Date: Apr 13

Time: Mon 8:30am-10:30am

Location: TBA *Please see Web Advisor closer to the date of scheduled final for location.*

To understand rules and regulations regarding Examinations students are encouraged to read Student's Responsibilities (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/examinations/>)

If the student is unable to meet the final exam requirements due to medical, psychological or compassionate circumstances they are encouraged to review Student's Responsibilities in the Academic Consideration, Appeals and Petitions (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/>) section of the Academic Calendar.

## Last Day to Drop Course

The final day to drop Winter 2026 courses without academic penalty is the last day of classes: April 06

After this date, a mark will be recorded, whether course work is completed or not (a zero is assigned for missed tests/assignments). This mark will show on the student's transcript and will be calculated into their average.

## Course Grading Policies

### Submission of Assignments

*each instructor will have their own policy*

### Late Assignment

*each instructor will have their own policy*

## Standard Statements for Undergraduate Courses

### 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 discourages misconduct. 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.

The Academic Misconduct Policy (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-misconduct/>) is outlined in the Undergraduate Calendar.

## 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 10 days in advance, and no later than the first business day in November, March or July as appropriate for the semester. Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time. For students at the Guelph campus, information can be found on the SAS website. (<https://www.uoguelph.ca/sas>)

## Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic calendar for information on regulations and procedures for Academic Accommodations of Religious Obligations (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-accommodation-religious-obligations/>).

## 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.

## 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 undergraduate students 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 the Undergraduate Calendar - Dropping Courses (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/dropping-courses/>).

## Email Communication

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

## Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness (<https://wellness.uoguelph.ca/>). If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator (<https://wellness.uoguelph.ca/navigators>) who can help develop a plan to manage and support your mental health or check out our mental wellbeing resources (<https://wellness.uoguelph.ca/shine-this-year>). The Student Wellness team are here to help and welcome the opportunity to connect with you.

## 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).

## 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.

## Resources

The Academic Calendars (<http://www.uoguelph.ca/registrar/calendars/?index>) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.



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## **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. See the Undergraduate Calendar for information on regulations and procedures for Academic Consideration. (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/>)