

# EQN\*2050 - Introduction to Equine Nutrition

## Winter 2025 Course Outline

**Section: 01**

**Credits: 0.50**

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## 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 introduces fundamental concepts of nutrition from a biochemical perspective. The biological roles of carbohydrates, lipids and proteins are studied, as well as the role of metabolic pathways in maintaining equine health at the cellular, organ, and whole body levels. Diagnosis, management, and prevention of equine nutritional diseases are discussed.

**Restriction(s):** Registration in BBRM.EQM.

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

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## Lecture Schedule

TuTh 10am-11:20am in ALEX\*309 (1/6 to 4/21)

## Lab / Seminar Schedule

There will be no weekly labs for this course.

Instead, Mondays from 12 - 2:30 PM are available to obtain additional help from Dr. Rankovic (in ANNU 139), if needed. The room (ANNU 102) can also be used by the students during this time (Monday 11:30 AM - 2:20 PM) as a work space to work on group assignments, studying, exam review etc.

## Instructor Information

**Alexandra Rankovic, MSc, PhD**

Email: arankovi@uoguelph.ca

Office: ANNU 139

Office Hours:

Mondays 12 PM - 2:30 PM

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## Learning Resources

### Required Resources

You will need a calculator for this course and/or access to a computer with Excel. Lecture notes and additional information pertinent to the course are posted on CourseLink.

### Campus Resources

If you are concerned about any aspect of your academic program: Make an appointment with a Program Counsellor (<https://www.uoguelph.ca/uaic/programcounsellors/>) in your degree program. If you are struggling to succeed academically: There are numerous academic resources offered by the Learning Commons (<https://www.lib.uoguelph.ca/using-library/spaces/learning-commons/>) including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills.

## Cost of Textbooks and Learning Resources

There are no required textbooks for this course.

## Library Course Reserve (Ares)

Although there are no required textbooks for this course, additional resources, which students may find helpful for the completion of assignments, can be accessed through the University of Guelph McLaughlin Library. The following textbooks have been placed under course reserve for this course:

1. Geor RJ; H Patricia#; Coenen, Manfred. Equine Applied and Clinical Nutrition: Health, Welfare and Performance.
2. National Research Council (U.S.). Committee on Nutrient Requirements of Horses. Nutrient requirements of horses. 6th rev. ed.

To access these items, select **Ares** on the navbar in CourseLink. Note that you will need your Central Login ID and password in order to access items on reserve.

For further instructions on accessing reserve resources, visit How to Get Course Reserve Materials (<https://www.lib.uoguelph.ca/find/course-reserves-ares/>).

If at any point during the course you have difficulty accessing reserve materials, please contact the e-Learning Operations and Reserve Services staff at:

Tel: 519-824-4120 ext. 53621 | Email: [libres2@uoguelph.ca](mailto:libres2@uoguelph.ca) | Location: McLaughlin Library, First Floor, University of Guelph

## Course Learning Outcomes

1. Understand digestive anatomy and physiology of the horse and how they utilize feed.
2. Understand nutrient metabolism and requirements in the horse.
3. Understand common feedstuffs and recognize quality.
4. Understand anti-nutritional factors in common feeds used in horses.
5. Be able to widely evaluate feeding management and be able to recommend changes to the feeding program.
6. Be able to predict required feed intake and balance basic rations.

## Schedule of Topics and Assignments

Week of	Topic	Activities	Due
1/7	Introduction to the course & the digestive system		
1/14	Macronutrients: carbohydrates, lipids and proteins		
1/21	Vitamins, minerals and water		
1/28	Digestive physiology		
2/4	Nutrient metabolism		
2/11	Feed analysis & common calculations	Writing Assignment	Friday February 14
2/18		Winter Break	
2/20		Winter Break	
2/25	Midterm review and midterm	In-class midterm	Thursday February 27
3/4	Forages and pasture management		
3/11	Feed ingredients and concentrates	Calculation Assignment 1	Friday March 14
3/18	Energy and protein utilization		
3/25	Feeding at different lifestyles		
4/1	Overflow and final review	Calculation Assignment 2	Friday April 4
4/8		Final exam	Friday April 11

## Assessment Breakdown

Description	Weighting (%)	Due Date
Writing Assignment	20%	Friday February 14 (Dropbox)
Midterm Exam	20%	Thursday February 27 (In class)
Formulation/Calculation Assignment 1	15%	Friday March 14 (Dropbox)
Formulation/Calculation Assignment 2	15%	Friday April 4 (Dropbox)
Final Exam	30%	Friday April 11 (Location to be announced on Webadvisor)

## Assessment Details

### Assignment

#### Writing Assignment

20%

Students will be asked to prepare a short summary on an equine nutrition-related topic (students will pick from a list or can suggest their own with approval from Dr. Rankovic). The project can be done individually or in partners.

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

### Exam

#### Midterm Exam

20%

Course Learning Outcomes Assessed: 1, 2, 3, 4, 5, 6

### Assignment

#### Formulation/Calculation Assignments

30%

Students will have two calculation/formulation assignments which will build on each other, starting with unit conversions, simple calculations to determine intake and cost of hay and then building in complexity. Students must show their work alongside their answers.

Course Learning Outcomes Assessed: 5, 6

### Exam

#### Final Exam

30%

Course Learning Outcomes Assessed: 1, 2, 3, 4, 5, 6

## Final Exam

Date: Apr 11

Time: Fri 2:30pm-4:30pm

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 2025 courses without academic penalty is the last day of classes: April 04

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

Assignments should be submitted via Dropbox by the indicated due date and time. Unless otherwise indicated, assignments are due by the end of the day (11:59pm) on posted due date.

#### Dropbox Submission

For assignments submitted to Dropbox, do not leave the page until your assignment has been successfully uploaded. To verify that your submission was complete, you can view the submission history immediately after the upload to see which files uploaded successfully. The system will also email you a receipt. Save said email as proof of submission.

Be sure to keep a back-up copy of all of your assignments in the event that they are lost in transition. In order to avoid any last-minute computer problems, your instructor strongly recommend you save your assignments to a cloud-based file storage (e.g., OneDrive), or send to your email account, so that should something happen to your computer, the assignment could still be submitted on time or re-submitted.

It is your responsibility to submit your assignments on time as specified on the Schedule. Be sure to check the technical requirements and make sure you have the proper computer, that you have a supported browser, and that you have reliable Internet access. Remember that technical difficulty is not an excuse not to turn in your assignment on time. Don't wait until the last minute as you may get behind in your work.

If, for some reason, you have a technical difficulty when submitting your assignment electronically, please contact your instructor or CourseLinkSupport: <https://support.opened.uoguelph.ca/contact>

### Late Assignment

Late penalties of 5% per day will be applied for late submissions.

## 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.

## 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/>)