



EQN*2050 Introduction to Equine Nutrition

Winter 2020

Section(s): C01

Department of Animal Biosciences

Credit Weight: 0.50

Version 1.00 - January 03, 2020

1 Course Details

1.1 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.

Pre-Requisites: BIOL*1050
Restrictions: Registration in BBRM.EQM

1.2 Course Description

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.

1.3 Timetable

Timetable is subject to change. Please see WebAdvisor for the latest information.

1.4 Final Exam

April 20th, 7:00 - 9:00pm

Exam time and location is subject to change. Please see WebAdvisor for the latest information.

2 Instructional Support

2.1 Instructional Support Team

Instructor: Lee-Anne Huber
Email: huberl@uoguelph.ca
Telephone: +1-519-824-4120 x53347
Office Hours: Email for appointment

2.2 Teaching Assistants

Teaching Assistant: Cara Cargo-Froom
Email: ccargofr@uoguelph.ca
Office Hours: Email for appointment

3 Learning Resources

3.1 Required Resources

Required Texts (Textbook)
Not applicable

3.2 Recommended Resources

Recommended Texts (Textbook)

None, but nutrition texts are available from the library if some concepts are not clear.

3.3 Additional Resources

Lab Manual (Lab Manual)
None

Other Resources (Other)

Electronic copy of course notes, handout (copies of the PPTslides) and other material will also be posted on a weekly basis on the course website.

3.4 Field Trip

Not applicable

3.4 Additional Costs

Not applicable

4 Learning Outcomes

4.1 Course Learning Outcomes

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

1. Specific Learning Outcomes:

The students will:

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

The course is designed to meet the following Learning Objectives of the University:

1. **Literacy:** Students will be required to understand introductory biochemistry and horse nutrition compiled in course notes and lecture material (power point slides).
2. **Understanding of Forms of Inquiry:** A major theme of this course will pertain to the process whereby information is obtained from a variety of sources and presented and interpreted from various perspectives.
3. **Depth and Breadth of Understanding:** This course will cross the boundaries of several conventional disciplines within the broad areas of nutrition, metabolism, physiology, feed technology, etc. Students will be encouraged to go beyond material discussed in class.
4. **Independence of Thought:** Emphasis will be placed on identifying and understanding the basis for current viewpoints. Inevitably, this results in challenges to orthodoxy.
5. **Love of Learning:** This course will be aimed at helping students to distinguish between education and training, and to ascribe value to both.

5 Teaching and Learning Activities

5.1 Lecture

Additional opportunity to attend the "Anatomy of the gastrointestinal tract (GIT)" wet lab in January - special interest

5.2 Seminar

Week on	Date(s)	Topics
1	Jan 06	No lab in first week
Topics:	Not applicable	
	Jan 08	Introduction, Digestive system

6 Assessments

Jan 10 Carbohydrates/Lipids

6.1 Assessment Details

2 Jan 13 – Lab 1 **Excel workshop – unit conversions**

Course Assignments and Tests (0%)

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
	Jan 15		
Laboratory assignments	Jan 17 Assignment 1; Feb 3, end of lab	5%	Vitamins, minerals and water: part 1 Depth and breadth of understanding, love of learning
	Jan 20 – Lab 2 Assignment 2; Feb 17, end of lab	5%	Common nutrition calculations: Forages
	Jan 22 Assignment 3; Mar 19, end of lab	5%	Vitamins, minerals and water: part 2
	Jan 22 Assignment 4; Mar 30, Dropbox 5 pm	15%	Digestive physiology
Midterm	February 14, in-class	20%	Literacy
Presentations ¹	4 Jan 27 – Lab 3 Attendance – specified above	5%	Common nutrition calculations: Concentrates
	Jan 29 Written – specified above	10%	Digestive physiology independence of thought
	Jan 31 Oral – specified above	10%	Nutrient metabolism
Final exam	April 20, 7:00 – 9:00 pm	25%	Literacy
	5 Feb 03 – Lab 4		Application - Lab Assignment 1 - Due at the e

¹ Topic selection and partner due January 23 at 5 pm. Order of presentations will be randomly selected in-class on January 24.

Feb 07 Feed analysis

Additional Notes (if required):

The lab room is equipped with limited computers. Students should bring their own computers or inform the TA ahead of time if they need a computer supplied.

Laboratory assignments

Assignments 1, 2, and 3 will be due Feb 3, Feb 10, and Mar 19 at the end of the lab sessions, respectively.

Assignment 4 will be due March 30, 5 pm via Courselink Dropbox.

Assignments handed in late will have 10% per day deducted.

Final examination date and time: April 20, 2020, 7:00 – 9:00 pm

Final exam weighting: The final exam will be worth 25% of the final mark and will be cumulative.

7 Course Statements

7.1 Grading Policies

Assignments and examinations will be graded in a timely fashion (within 14 days) and returned to the students (except the final exam) with personalized feedback and/or general feedback in class to highlight some of the shortcomings in the students' work or understanding of the concepts.

7.2 Course Policy on Group Work

For laboratory assignments, students may discuss concepts in groups, but assignments need to be handed in and will be marked for individual students.

For the presentation and summary, students will work in partners, in case of an odd number of students, the student can join another group or work alone. One presentation and summary are expected from each group and each individual will be given the same marks.

7.3 Course Policy regarding use of electronic devices and recording of Lectures

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

8 University Statements

8.1 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.

8.2 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>

8.3 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-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

8.4 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.

8.5 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 book their exams at least 7 days in advance and not later than the 40th Class Day.

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>

8.6 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/c08-amisconduct.shtml>

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

8.7 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.

8.8 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>
