



ANSC*6010 - Topics in Comparative Animal Nutrition

Fall 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

Current topics in the feeding and nutrition of agricultural, companion and captive animal species. Emphasis is placed on the influence of nutrients on metabolic integration at tissue, organ and whole-animal levels. A nutritional case study will be conducted to allow students to solve practical feeding problems by applying basic nutritional principles.

Department(s): Department of Animal Biosciences

Course Description

The course addresses the comparative aspects of food selection, feeding behaviour, digestive anatomy, physiology and function, nutrient utilization and energy metabolism in a diversity of animals primarily vertebrates, including wildlife, zoo animals, pets, experimental and alternate livestock species.

Lecture Schedule

TuTh 2:30pm-3:50pm in ANNU*101 (9/10 to 12/22)

Instructor Information

Alexandra Rankovic, PhD

Email: arankovi@uoguelph.ca

Additional Support

Pauline Kosmal PhD, email: pkosmal@uoguelph.ca

Learning Resources

Course Resources

This course will primarily focus on published scientific literature. Relevant scientific literature for assignments will be selected in consultation with Dr. Rankovic.

Although there are no recommended textbooks for this course, the following may be of interest and relevance for your assignments:

Cheese, P.R., and Dierenfeld, E.S. (2010). Comparative Animal Nutrition and Metabolism. - *Electronic version uploaded in Courselink.*

Robbins, C.T. (1993). Wildlife Feeding and Nutrition. 2nd Edition. - *Electronic version uploaded in Courselink.*

Barboza, P.S., Parker, K.L., and Hume, I.D. (2009). Integrative Wildlife Nutrition. - *Electronic version available on Ares reserve.*

Stevens, C.E., and Hume, I.D. (1995). Comparative Physiology of the Vertebrate Digestive System. 2nd Edition. - *Hardcopy available through Ares reserve.*

Campus Resources

There are numerous resources offered by the Learning Commons (<https://www.lib.uoguelph.ca/using-library/spaces/learning-commons>) which may be of assistance, including workshops focused on finding research, writing in the sciences, and making presentations.

Cost of Textbooks and Learning Resources

No textbooks need to be purchased for this course.

Library Course Reserve (Ares)

For this course, you will be required to access course reserve materials through the University of Guelph McLaughlin Library. 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 | Location: McLaughlin Library, First Floor, University of Guelph

Course Learning Outcomes

1. Literacy - Students will be required to develop an understanding of key review articles, interpret peer-reviewed original research papers and present ideas and research findings to the class orally. Students are expected to be actively involved in class discussions. Students' scientific writing skills will be improved through writing short and focused abstracts of their presentation material during the semester. Students are asked to follow the guidelines and requirements to prepare and carry out oral presentations and abstract writing assignments.
2. A sense of Historical Development - Comparative aspects of food selection, feeding behaviour, nutrient utilization and energy metabolism in agricultural, companion and captive animal species.
3. Understanding Forms of Inquiry - Various experimental approaches in the nutritional sciences and their interpretation will form an important part of discussions in class, through individual student presentations.
4. Depth and Breadth of Understanding - Aside from covering various topics related to nutrition, directed by student interests and reflected in their presentations; students will complete a review paper to examine a topic in depth. The topic and scope will be determined in consultation with the instructor.

Schedule

Day	Date:	Topic	Activities	Due
Thu	9/10	Course Introduction Searching the Comparative Nutrition Literature	Lecture	
Tue	9/15	NO CLASS	Assigned reading on Courselink	
Thu	9/17	The Scope of Comparative Nutrition	Lecture	
Tue	9/22	Guest Lecture by Dr. Kate Shoveller - Protein	Lecture	
Thu	9/24	Guest Lecture by Dr. Sanjana Anan - Energy	Lecture	
Tue	9/29	Guest Lecture by Dr. Sydney Banton - Aging	Lecture	
Thu	10/1	Hydration Across Species	Lecture	
Tue	10/6	Guest Lecture by Sarah MacDonald Murray (PhD Candidate) and Dr. Luciana Reis (PhD Candidate) - Fatty Acids	Lecture	First Graphical Abstract due: Mon Oct 5
Thu	10/8	First Student Presentations		
Tue	10/13	Fall Study Break		
Thu	10/15	Lecture: Writing a Grant Proposal	Lecture	
Tue	10/20	First Student Presentations		
Thu	10/22	First Student Presentations		



Tue	10/27	First Student Presentations	
Thu	10/29	First Student Presentations	
Tue	11/3	First Student Presentations	
Thu	11/5	First Student Presentations	Second graphical abstract due: Fri Nov 6 Grant topic and objectives due: Fri Nov 6
Tue	11/10	Second Student Presentations	
Thu	11/12	Second Student Presentations	
Tue	11/17	Second Student Presentations	
Thu	11/19	Second Student Presentations	
Tue	11/24	Second Student Presentations	
Thu	11/26	Second Student Presentations	
Tue	12/1	Second Student Presentations	
Thu	12/3	NO CLASS: Option to come in and work on final assignment and ask questions	Final grant proposal due: Mon Dec 7
Tue	12/8	No Class	
Thu	12/10	No Class	
Tue	12/15	No Class	
Thu	12/17	No Class	
Tue	12/22	No Class	

Teaching and Learning Activities

The core of this course will feature individual presentations by students on topics reflecting their personal interests in the relevant scientific literature. This format emphasizes the exposure to a diversity of species and topics, while helping students gain presentation skills.

Two to three students will present each class, with each student presenting twice over the semester. Examples of topics addressed/papers chosen in previous semesters will be supplied to provide guidance on potential topics.

Each student will also submit a grant proposal at the end of the semester, with the topic and scope selected in consultation with Dr. Rankovic and/or Dr. Kosmal. It is recommended that at least one of the papers chosen for presentation be relevant to the student's grant proposal.

Assessment Breakdown

Description	Weighting (%)	Due Date
Graphical Abstracts (2 total)	10	- First abstract: Mon October 5 11:59pm - Second abstract: Fri November 6 11:59pm
Presentations (2 total)	40	Ongoing - see schedule
Engagement and Peer Feedback	15	Ongoing - see schedule
Grant Topic and Objectives	5	Fri November 6 11:59pm
Final Grant Proposal	30	Mon December 7 11:59pm

Assessment Details

Graphical Abstract (2 total)

For each presentation, you will separately prepare an original graphical abstract based on your selected paper. A graphical abstract is a single figure that summarizes the key point(s) of the article and serves as a visual to generate interest in the work. It should communicate the paper's central message(s) rather than provide a comprehensive summary of everything that will be covered in your presentation. The graphical abstract should use clear visual elements, minimal text, and a logical flow (i.e., reading from left to right or from top to bottom). Text must be large enough to remain legible, and a reference to the paper should be included below it.



The graphical abstract must be the student's original work and may not reproduce or closely replicate a graphical abstract already published with the selected paper. It must be submitted through CourseLink by the deadlines below, along with a PDF of the selected paper, so that it can be shared with the class in advance.

- First graphical abstract + article PDF: Monday October 5 11:59pm
- Second graphical abstract + article PDF: Friday November 6 11:59pm

Course Learning Outcomes Assessed: 1, 2, 3

Presentations (2 total)

Your presentation should last 17 minutes, supported by Powerpoint, to be followed by a question period of 5 min. Each presentation will focus on one (at most two) papers selected from the recent literature (preferably from 2016 onwards).

Students must come to class ready to present on their scheduled presentation day. Presentations must be uploaded to Courselink by 11:59pm prior to the student's presentation (ie: uploaded by Monday night for a Tuesday presentation, and Wednesday night for a Thursday presentation). All student presentations will be uploaded to the same computer for presentation.

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

Engagement and Peer Feedback

To promote critical evaluation of presentations by the other participants, students will complete an evaluation for each of the presentations by the other students in the course, covering both the graphical abstract submitted and the presentation itself (a template for feedback will be supplied). These will be collected and graded for their effectiveness before being returned anonymously to the presenter the following week. Performance in these evaluations will be reflected in 5% of the "Feedback" grade awarded. Appropriate attendance and participation during question periods will be accounted for in the remaining 10% of the grade.

Course Learning Outcomes Assessed: 1, 3

Final Assignment: Grant Proposal

You will submit a hypothesis-driven research grant proposal on a topic relevant to both the scope of the course and your personal interests, following the structure of a Morris Animal Foundation (MAF) Study Proposal. Your topic should build on the content of one or both of your class presentations. Following the MAP Proposal guidelines, including page and length limits (provided in Courselink), your proposal must include a technical summary, lay summary, study proposal, animal health impact, budget justification and timeline, and cited references.

The final grant proposal is due Monday December 7 11:59 PM

Milestone – Grant Topic & Objectives Confirmation (5%): By **Friday, November 6**, submit a brief (150–250 word) statement of your proposed topic, including a draft hypothesis and objectives, for review and confirmation. You may not proceed to the full proposal until your topic is confirmed. Graded on completion, clarity and feasibility.

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

Last Day to Drop Course

The final day to drop Fall 2026 courses without academic penalty is the last day of classes: December 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

Abstracts

Graphical abstracts will be uploaded to Courselink. The submission should include the graphical abstract and the paper(s) that your presentation is focused on. All students must submit their graphical abstracts for the following deadlines:

- First graphical abstract: Monday October 5 11:59pm EST
- Second graphical abstract: Friday November 6 11:59pm EST

Presentations



Students must come to class ready to present on their scheduled presentation day. Presentations must be uploaded to Courselink by 11:59pm prior to the student's presentation (ie: uploaded by Monday night for a Tuesday presentation, and Wednesday night for a Thursday presentation). All student presentations will be uploaded to the same computer for presentation.

Presentation Feedback

Students will complete their feedback to presenters during class.

Selected Grant Topic & Final Grant Proposal

Students will submit their proposed topics and final grant proposals via Dropbox on Courselink.

Standard Statements for Graduate 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/graduate-calendar/general-regulations/academic-misconduct/>) is outlined in the Graduate 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.

Use of the SAS Exam Centre requires students to make a booking at least 10 business days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). 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 Accommodation of Religious Obligations (<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/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

Courses that are one semester long must be dropped by the end of the last day of classes; two-semester courses must be dropped by the last day of classes in the second semester. The regulations and procedures for Dropping Courses (<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/registration/>) dropping courses are available in the Graduate Calendar (<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/registration/>).

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 Graduate Calendar for information on regulations and procedures for Academic Consideration (<https://calendar.uoguelph.ca/graduate-calendar/general-regulations/grounds-academic-consideration/>).