UNIVERSITY OF MANITOBA

Faculty of Agricultural and Food Sciences

ANSC-2540: Companion animal nutrition and management

Winter Term 2024

COURSE DETAILS

Course Title & Number:	ANSC 2540: Companion animal nutrition and management
Number of Credit Hours:	3
Lecture Times/Days/Location:	Tuesday, Thursday 10:00 – 11:20 Ellis Building Room 344.
Labs Times/Days/Location:	N.A.

Instructor Contact Information

Instructor(s) Name:	J. C. (Kees) Plaizier
Preferred Form of Address:	Anything polite
Office Location:	Room 232A Animal Science
Office Hours or Availability:	After class 11:20 to 12:00, or by appointment
Office Phone No.	204-474-9500, but email is preferred
Email:	Kees.Plaizier@ad.umanitoba.ca
Contact:	Contact the instructor by email with the subject heading ANSC 2540 and your name. Contact in English preferred. Contact in Dutch, German, French, and Portuguese possible. I expect to respond to 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.

ANSC 2540: Companion animal nutrition and management

Course Description

The course will cover the nutrition and management of cats, dogs, and other pets. In addition, coverage will be given on aspects of functional anatomy, genetics, behavior, reproduction, and common diseases of these animals. Equine are not covered)

Intended Learning Outcomes

Specific Learning Outcomes:
The students will:

1) Develop an understanding of the different needs of different exotic animals
2) Develop an understanding of the basic digestive, physiological and metabolic processes of dogs and cats as they relate to nutrition
3) Be aware about the relationship between nutrition, environment, welfare and health
4) Compare approaches for establishing nutrient requirements, nutritional specifications, and feed formulation guidelines and be able to discuss some of the limitations and implications of these approaches. Learn about some of the methods and protocols commonly used in pet nutrition research
5) Learn about feed ingredients, their origin, and the factors affecting their quality and nutritive value
5) Learn about formulation and manufacturing pet foods (pet feeds) and the regulatory issues related to pet foods.
6) Be exposed to current and emerging issues in the pet food industry
7) Learn about available commercial and unconventional pet foods
8) Acquire some of the skills needed to be able to effectively gather, integrate and analyze scientific information to make informed decisions related to the nutrition and health of companion animals and be able to develop a critical view of nutritional claims and statements found in technical and commercial pet food documentation and advertising.
9) Understand that optimal feeding of healthy companion animals is important for the prevention of disease

The course is designed to meet the following Learning Objectives:

1) Literacy: Students will be required to critically review and understand the up-to-date scientific information on pet nutrition compiled in course notes and lecture material (power point slides). The students will also be required to review scientific papers and technical documents, comprehend and present ideas and findings into an imposed format.

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.

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Using Copyrighted Material

***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.

Recording Class Lectures

The instructors 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

Required textbook – None

Library Material:

- McNamara, J. P. (2006) Principles of Companion Animal Nutrition. Pearson Prentice Hall, Toronto.
- Campbell, K. L., Campbell, J. E., and Corbin, J. E. (2005) Companion Animals: Their Biology, Care, Health, and Management. Pearson Prentice Hall, Toronto.

Course Technology

On-line course information: Course information is available for students to access through UM Learn. To access the UM Learn site, log in using your UMNetID to: https://universityofmanitoba.desire2learn.com/d2l/login. Click on this course name to gain access to course content (note K designates the lecture, B designates the lab).

Cell phones and lap top computers: 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 technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Student Accessibility 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) or gaming during scheduled class time.

If a student is on call (emergency), then the student should switch his/her cell phone to vibrate mode and leave the classroom before using it.

Attendance/Participation

From the University of Manitoba Academic Calendar:

"Regular attendance is expected of all students in the course. An instructor may initiate procedures to debar a student from attending classes and from final examinations and/or from receiving credit where unexcused absences exceed those permitted by faculty or school regulations. A student may be debarred from class, laboratories, and examinations by action of the dean/director for persistent non-attendance, failure to produce assignments to the satisfaction of the instructor, and/or unsafe clinical practice or practicum. Students so debarred will have failed that course."

Regular attendance and active participation are requirements for this course.

Class notes and lab material 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. Instructor 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

The University requires all students to activate an official University email account. For full details of the Electronic Communication with Students please visit:
https://catalog.umanitoba.ca/graduate-studies/university-policies-procedures/electronic-communication-students/

Please note that all communication between myself and you as a student must comply with the electronic communication with student policy
https://catalog.umanitoba.ca/graduate-studies/university-policies-procedures/electronic-communication-students/

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

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

Academic Integrity:
See Schedule "A" Policies and Resources

Students Accessibility Services

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 *https://umanitoba.ca/student-supports/accessibility*
204 474 7423
Student_accessibility@umanitoba.ca

Expectations: You Can Expect Me To

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.

Course Evaluation Methods

Assignment or Test	Due Date	Contribution to Final Mark (%)
Midterm	February 15	**25%**
Group presentations	19-29 March	**25%**
Diet Formulation	April 2	**20%**
Final exam	TBA	**30%**

Assignments

To be submitted via UM Learn in a Microsoft Word document (MS PowerPoint for presentations). Rubrics to be provided.

Important Dates

January 8	First day of classes for Winter 2024 Courses
January 19	VW Date for Fall/Winter Term spanning courses
January 22	Last day to ADD Winter term spanning courses
February 7	Winter Tuition Fee Payment Deadline
February 19-23	Winter Term Break
March 20	VW Date for Winter Term courses
April 10	Last instructional day for Winter 2024 courses
April 12 - 26	Winter Term examination period

Grading

Letter Grade	Percentage	Final Grade Point
A+	92-100	4.5
A	85-91.9	4.0
B+	78-84.9	3.5
B	70-77.9	3.0
C+	63-69.9	2.5
C	56-62.9	2.0
D	50-55.9	1.0
F	<50	0

Referencing Style

The referencing style required is stated in the lab material

Assignment Descriptions

All marks will be given on exams (Short answer, short essay, multiple choices, fill the blank, true/false and/or matching).
Group activities: Teamwork, written assignments or class discussions/short presentations (10-15 min), documentaries, case study or watch industrial production processes. The report has to be submitted in UM-Learn system. Assignments include the formulation of a diet for a dog or for a cat and a group presentation (10-15 min) on a pet nutrition related subject.

Assignment Grading Times

All assignments handed in on time will be graded and returned within 2 weeks of the due date; late assignments will be graded as my time permits.

Missed tests

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

Class Schedule

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students

Week	Date(s)	Topics	Instructor or Guest Speaker(s)
1	9 Jan 11 Jan	Introduction to course, taxonomy, domestication The pet food industry and pet food market, organizations and regulations	JCP JCP
2	16 Jan 18 Jan	Overview of the gastrointestinal physiology of dogs and cats Overview of the gastrointestinal physiology of dogs and cats	JCP JCP
3	23 Feb 25 Feb	Factors influencing nutrient requirements Anatomic and metabolic idiosyncracies of the dog and the cat	JCP JCP
4	30 Jan 1 Feb	Exotic animal metabolic and nutritional idiosyncracies Recommended energy and nutrient intakes for dogs and cats	JCP JCP

ANSC 2540: Companion animal nutrition and management

5	6 Feb 8 Feb	Recommended energy and nutrient intakes for dogs and cats Manufacturing pet food: Ingredient quality and processing techniques	JCP JCP
6	13 Feb **15 Feb**	Manufacturing pet food: Ingredient quality and processing techniques **Midterm Exam**	JCB **JCB**
7	20 Feb 22 Feb	Winter term break Winter term break	
8	27 Feb 29 Feb	Diet formulation Oral and dental health of cats and dogs	JCP JCP
9	5 March 7 March	Genetic diseases of dogs and cats Health, diseases, zoonoses	JCP JCP
10	12 March 14 March	Gastrointestinal health, the first line of defense Behaviour	JCP JCP
11	19 March 21 March	Presentations Presentations	JCP JCP
12	26 March 28 March	Presentations Presentations	JCP JCP
13	2 April 4 April	Life-cycle nutrition for dogs and cats Rodents and birds	JCP JCP
14	9 April	Review	

Laboratory Expectations

N.A.

Lab Schedule

N.A.

Acknowledgements

In the development of the course notes, a wide variety of sources have been used, including the books by John McNamara and Karen and John Campbell. Additionally, various diagrams, figures etc have been taken from the internet and url addresses are provided were possible as reference. Lastly similar courses at various universities have been consulted, and ideas and resources have been adapted and modified to fit the current course. The most important have been the Universities of Guelph, Illinois, Iowa, and California, as well as Cornell University.