University of Manitoba
Faculty of Agricultural and Food Sciences
Department of Animal Science

ANSC 3530 The Animal and its Environment

Course Outline

Winter 2021

COURSE DETAILS

Course Number & Title: ANSC 3530 The Animal and its Environment

Number of Credit Hours: 3

Class Times & Location: 11:30 AM – 12:20 PM Monday, Wednesday and Friday

Lab Times & Location: 2:30-5:15 PM Friday

Pre- or Co-Requisite: ANSC 2520

Instructor Contact Information

Lead Instructor:

J. C. (Kees) Plaizier
Office: 232a Animal Science Bldg.
Office Hours: N/A, please contact by email.
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Co-instructors:

Marcos C. Cordeiro
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Meagan T.M. King
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Student support:

Responsibilities of Academic Staff with Regard to Students (ROASS)
Final Examination and Final Grades Policy
Respectful Work and Learning Environment Policy
Sexual Assault Policy
Student Advocacy Office Policy
Student Academic and Non-Academic Misconduct Policies
Student Discipline Appeal Procedure
The University of Manitoba Accessibility Policy
University Health Services Policy

All email communication must conform to the University of Manitoba's Electronic Communications with Students policy. Students are required to obtain and use their UManitoba email account for all communication between themselves and the university.
Instructor will reply to email messages within 48 hours during the academic term, Monday through Friday. Use the subject line to state the reason for your e-mail to expedite responses where urgency is appropriate**.**

General Course Information

How to use this syllabus: Students are expected to refer regularly to this document that communicates the roles and responsibilities of students and the instructor, course schedule, and the student requirements for successful completion of the course. Students are expected to request clarification as needed and to comply with the University Policies contained within.

Course Description: "Deals with how the animal is influenced by its environment to affect health, welfare and performance. Principles of farmed animal behavior, welfare and behavioral

management, health, and facility design and modification will be considered in the context of animal/environment interactions."

The following is a proposed course schedule with approximate dates, though these are subject to change at the discretion of the instructor and/or as the learning needs of students evolve. Any such changes are subject to Section 2.8 of the ROASS Procedure.

Date	**Lecture material**	**Lab**
January 18	Course outline and expectations (MC, JP, MK)	
January 20	Introduction	
January 22	Response to environmental impingements; adaptation (JP)	The nerve system (JC)
January 25	Biological rhythms, photoperiod and animal performance (JP)	
January 27	The animal and its thermal environment: homeothermy, heat balance and heat flow; control and integration of thermoregulatory responses (JP)	
January 29		Assessing cold stress (MC)
February 1		
February 3		
February 5		Options in swine housing (MC) - Laurie Connor (UM Senior scholar), Mark Finn (Manitoba Pork), DGH engineering (pending confirmation)
February 8		
February 10		
February 12		Ventilation with Dr. Qiang Zhang (Biosystems Engineering) (MC)
February 15	Winter break	
February 17		
February 19		
February 22	**TERM TEST ONE**	
February 24	The animal and its thermal environment: homeothermy, heat balance and heat flow; control and integration of thermoregulatory responses, continued (JP)	
February 26		Assessing environments; preparation for farm tours (MC)
March 1	Introduction to animal environments and behaviour	
March 3		
March 5	Handling and transportation	Animal Handling (MK)
March 8	Social and agonistic behaviour in response to animal environments	

March 10	Feeding behaviour in response to animal environments	
March 12	Sexual and maternal behaviour in response to animal environments	UPDATED 2020.01.19: Welfare regulations in MB. Enoch Omololu (MARD) (MC)
March 15	Animal welfare and behaviour in response to animal environments	
March 17		
March 19		Virtual tour of Rosenort Siemens Poultry farms. Anna Rogiewic (UM) and Harley Siemens (Siemens Farm) (MC)
March 22	Anomalous behaviour in response to animal environments	
March 24	Review class	
March 26	**TERM TEST TWO**	Virtual Farm tour – Dairy GRC (JP, MK)
March 29	Confinement of animals: space considerations and requirements (MC)	
March 31		
No class April 2 (Good Friday)		
April 5		
April 7		
April 9	Virtual Swine Barn GRC. Video from Jason B. with live comments from Don Chaput	Student presentations of barn design (MC, JP, MK)
April 12	Confinement of animals: health considerations and requirements (MC)	
April 14		
April 16	REVIEW	Barn design report due (MC, JP, MK)

Assignments:

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

Important Dates:

January 29	Last day to drop classes without penalty
February 1	Last day to register for winter term and spanned courses
February 17	Tuition deadline
March 8	Deadline for approving final paper topic
March 31	Voluntary withdrawal (VW) deadline for fall classes
April 19 to May 1	Winter term final exam period

Course Goals

To gain an understanding of how livestock are influenced by and interact with their environment to affect health, welfare and performance. To understand and be able to apply principles of farmed animal behaviour, welfare requirements, health, and facility design in the context of animal-environment interactions.

Intended Learning Outcomes

Upon completion of this course, students should:

- Be able to define stress and the various adaptations to environmental impingements animals encounter in animal agriculture.
- Be able to demonstrate the physiological responses to stress and the welfare, health and performance implications of those responses.
- Be able to demonstrate how the duration and intensity of light we provide for animals can affect welfare and performance of animals in controlled housing.
- Be able to indicate how animals respond to environmental temperatures outside their comfort zones and how these responses aid their survival and/or well-being during these times of temperature challenge.
- Be able to list some common social, maternal, feeding (etc.) behaviours and how to use this knowledge of normal behaviours to recognize abnormal behaviours.
- Be able to demonstrate what these abnormal behaviours may indicate about the animals' environment.
- Be able to discuss how we use animal behaviour to best handle animals.
- Know how to access and utilize the Codes of Practice for farm animals.
- Be able to discuss factors that influence air quality and health in confined facilities.

Using Copyrighted Material

Please respect copyright. The course content is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by the Academic Team, 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

Textbook, Readings, Materials

There is no assigned textbook for this course. All course information, assignments and readings will be provided to students either in class or through UM Learn.

If you are having trouble with some material and would like some extra reading please ask and I can recommend a book and/or website to assist you.

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) 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.

Missed Exams: Students will not be allowed to make up a missed exam except under exceptional circumstances. Students who miss a test must contact the Instructor immediately with documentation of a valid reason and to make alternate arrangements.

Late assignments: Assignments will be devalued by 10% for each hour that they are late unless otherwise noted.

Student Responsibilities

- Attend all classes (lectures and labs) and actively participate in learning activities
- Regularly access ANSC 3530 K01 UM Learn site and University of Manitoba student e-mail to access course information
- Seek clarification from Instructor regarding the contents of this course outline if required
- Be aware of and comply with University of Manitoba Policies and Procedures
- Listen attentively and do not disturb others during class
- Refrain from using cell phones and other communication devices during class
- Use professional, clear communication when e-mailing instructors and classmates
- Serve as good ambassadors for the Animal Science program and the Agricultural Community
- While on farm tours, ask questions and be respectful of the producer's time and facility.

See Respectful Work and Learning Environment Policy.

Academic Integrity:

All course work is to be completed individually for this course, unless you are specifically asked to collaborate with classmates. Inappropriate collaboration will be monitored by instructors on all work submitted within the course. All course work submitted must be created specifically for this course by the student whose name is on the work.

Group or Team projects are also subject to the same rules of academic integrity.

Please refer to the University of Manitoba guidelines on Cheating, Plagiarism and Fraud.

Expectations: You Can Expect the Instructor To

- Support students in meeting their individual learning goals.
- Provide opportunities for students to learn in a safe environment.
- Be respectful of students' opinions, questions and response to questions.
- Provide prompt, constructive feedback on assignments and exams.
- Meet with students to clarify course content or assist with learning activities outside of class hours (please use posted office hours OR e-mail your request and suggested meeting time to instructor)

Course Evaluation Methods

Term test one – February 22	**15% of final grade**
Term test two – March 26	**15% of final grade**
Barn design- (PPT + Report)	
PPT- Due April 9	**15% of final grade**
Report – Due April 16	**15% of final grade**
Lab/class participation	**10% of final grade**
Final exam – TBA	**30% of final grade**

For the class attendance/participation portion, students will be evaluated based on their attendance and participation in class discussions.

A rubric and further information will be provided to students in preparation for the lab assignments and farm evaluations.

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