

ANSC*6710 - Assessing Animal Welfare in Practice

Winter 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

A lecture/seminar course covering the principles of applied animal welfare assessment. Students will learn what influences an animal welfare assessment and will understand the components necessary to create an effective and targeted animal welfare program for industry or regulatory application.

Prerequisite(s): ANSC*6700

Department(s): Department of Animal Biosciences

Course Description

This graduate level course will review current science related to the practical assessment of animal welfare. Students will be exposed to a wide variety of approaches to understanding and assessing animal welfare in practical settings. Students will investigate the role of legislation, guidelines and standards in the development of a practical animal welfare assessment and how the goal of the assessment influences the final document. They will review a wide variety of animal-based welfare measures and through field trials, learn the pitfalls in the validity and reliability of some of these measures

Lecture Schedule

Wed 11:30am-2:20pm in ANNU*101 (1/5 to 4/21)

Instructor Information

Penny Lawlis

Email: pclawlis@gmail.com

Learning Resources

Required Resources

Required Resources Course Technologies (Software) CourseLink System Requirements You are responsible for ensuring that your computer system meets the necessary system requirements. Use the browser check tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window). <http://spaces.uoguelph.ca/ed/system-requirements/> <https://courselink.uoguelph.ca/d2l/systemCheck>

Cost of Textbooks and Learning Resources

Textbook / Learning Resource	Required / Recommended	Cost
No required textbooks		N/A
Course reserve materials	Access from Library	N/A
Field Trip for data collection	The plan is to carpool or use dept. vehicles.	N/A

	* If the trip for data collection uses a rented bus, then there would be a \$20 per person fee	*\$20
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Students are advised that prices are often determined by the publisher or bookstore and may be subject to change.

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

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

1. Review and discuss current science related to the practical assessment of animal welfare.
2. Students will be exposed to a wide variety of approaches to understanding and assessing animal welfare in practical settings.
3. Students will investigate the role of legislation, guidelines and standards in the development of a practical animal welfare assessment and how the goal of the assessment influences the final document.
4. Students will review a wide variety of animal-based welfare measures and through field trials, learn the pitfalls in the validity and reliability of some of these measures.
5. In addition, students will learn how to develop an effective animal welfare assessment program.

Teaching and Learning Activities

Jan 7

Topics: Introduction to Animal Welfare Assessment in Practical Settings.

References: Suggested Readings: No readings for the first class.

Jan 14

Topics: How to Measure Animal Welfare in Practical Settings - Resource-Based vs. Animal-Based Measures.

Suggested Readings:

- Main DCJ, Whay HR, Green LE and Webster AJF (2003). Effect of the RSPCA Freedom Food scheme on the welfare of dairy cattle. Veterinary Record, 153:227-231.
- Supplemental Material: Farm animal welfare in the U.S.A.: farming practices, research, education, regulation, and assurance programs. Applied Animal Behaviour Science 13: 298-312.
- The questionable value of some science-based 'welfare' assessments in intensive animal farming: sow stalls as an illustrative example. MP CAULFIELD and H CAMBRIDGE. Aust Vet J. 2008 Nov;86(11):446-8.

Jan 21

Topics: Cruelty Legislation vs. Animal Welfare Legislation Regulations and Codes of Practice.

Suggested Readings:

- Animal Law in Canada (<https://www.inspection.gc.ca/animal-health/humanetransport/provincial-and-territoriallegislation/eng/1358482954113/1358483058784/>)
- Animal Protection Index (<https://api.worldanimalprotection.org/>)
- Animals for Research Act (<http://www.omafra.gov.on.ca/english/food/inspection/ahw/ara>)

References:

Jan 28

Topics: Analysis of Existing Codes vs. Regulations vs. Standards.

Suggested Readings:

- The Food Marketing Institute and the National Council of Chain Restaurants: animal welfare and the retail food industry in the United States of America. Brown KH and Hollingsworth J (2005). *Revue scientifique et technique* (International Office of Epizootics), 24:655-663.
- Hollingsworth J (2005). *Revue scientifique et technique* (International Office of Epizootics), 24:655-663. <https://pubmed.ncbi.nlm.nih.gov/16358516/>
- How can farmers make use of welfare assessment schemes? – A case study. In: Koene P (Ed.). Ingemann R, Søndøe P and Forkman (2008). *Proceedings of the 4th International Workshop on the Assessment of Animal Welfare at Farm and Group Level (WAFGL, Wageningen, The Netherlands, pp. 66).*
- Assessment of farm animal welfare at herd level: many goals, many methods. *Acta agriculturæ Scandinavica. Section A, Animal science, Suppl* 30:26-33.

Feb 4

Topics: Animal Welfare Programs.

Suggested Readings:

- Animal-based measures for the assessment of dairy cattle, pigs, and laying hens: consensus of expert opinion. *Animal Welfare*. Whay HR, Main DCJ, Green LE and Webster AJF (2003). 12:205-217.
- Definition of criteria for overall assessment of animal welfare. Botreau R, Veissier I, Butterworth A, Bracke MBM and Keeling LJ (2007). *Animal Welfare*, 16:225-228.
- The reliability and repeatability of a lameness scoring system for use as an indicator of welfare in dairy cattle. Winckler C and Willen S. (2001). *Acta agriculturæ Scandinavica. Section A, Animal science, Suppl* 30:103-107.
- Assessing lameness in cows kept in tie-stalls. K. A. Leach, S. Dippel, J. Huber, S. March, C. Winckler, and H. R. Whay J. *Dairy Sci.* 92:1567-1574 10.3168/jds.2008-1648. American Dairy Science Association, 2009.1.Mench JA (2008).

Feb 11

Topics: Student Reports, Animal-Based Measures.

Suggested Readings:

- Science-based assessment of animal welfare: farm animals. Duncan IJH (2005). *Revue scientifique et technique* (International Office of Epizootics), 24:483-492.
- The assessment and implementation of animal welfare: theory into practice. Webster J (2005). *Revue scientifique et technique* (International Office of Epizootics), 24:723-734.
- Assessing Animal Welfare: Different Philosophies, Different Scientific Approaches. Fraser, David. *Zoo Biology* 28: 507–518 (2009).

Feb 18

Reading Week - No Class.

Feb 25

Topics: Class Project - Practice.

Suggested Readings:

- De Rosa G, Tripaldi C, Napolitano F, Saltalamacchia F, Grasso, F, Bisegna V and Bordi A (2003). Repeatability of some animal-related variables in dairy cows and buffaloes. *Animal Welfare*, 12:625-629.
- Lehner PN (1996). *Handbook of ethological methods*. Second edition. Cambridge University Press, Cambridge, pp. 212-221; pp. 389-390.
- Zar JH (1999). *Biostatistical Analysis*. Fourth Edition (Prentice hall, New Jersey, pp. 443-447; pp. App106; pp. App.12-15).
- Courboulay V (2007). Body condition score. In: Velarde A and Geers R (eds.) *On Farm Monitoring of Pig Welfare* (Wageningen Academic Publishers, Wageningen, pp. 111-115).

March 4

Topics: Field Trip Data Collection for Class Project.

References: IOR

March 11

Topics: IOR.

March 18

Topics: Qualitative Animal Welfare Assessment.

Suggested Readings:

- Wemelsfelder F, Hunter EA, Mendl M and Lawrence AB (2000). The spontaneous qualitative assessment of behavioural expressions in pigs: first explorations of a novel methodology for integrative animal welfare measurement. *Applied Animal Behaviour Science*, 67:193-215.
- Wemelsfelder F (2001). Qualitative assessment of animal behaviour as an on-farm welfare-monitoring tool. *Acta agriculturæ Scandinavica. Section A, Animal science*, Suppl 30:21-25.
- Wemelsfelder F (2007). How animals communicate quality of life: the qualitative assessment of behavior. *Animal Welfare*, 19(S):25-31.
- Savory CJ, Hocking PM, Mann JS and Maxwell MH (1996). Is broiler breeder welfare improved by using qualitative rather than quantitative food restriction to limit growth rate? *Animal Welfare*, 5:105-127.

March 25

Final Project Presentations and Discussion

April 1

Final Project Presentations and Discussion

Assessment Breakdown

Description	Weighting (%)	Due Date
Presentation: Compare and Contrast	20%	Jan 28
Present a Critique	20%	Feb 11
Inter-observer Reliability trials	20%	Mar 18 - Apr 1
Welfare Assessment/Audit	30%	Mar 25 - Apr 1
Class Participation	10%	Ongoing

Assessment Details

Presentation

Presentation: Compare and Contrast

20%

Presentation: Compare and Contrast (20%)

Date: Wed, Jan 28

Learning Outcome: 1, 2, 3, 4

Students lead the seminar by giving a presentation comparing and contrasting different codes of practice, regulations or standards for their particular species. The codes of practice etc. that the students will present will be the basis for the culminating activity i.e., the development of an animal care assessment. For example, a student may decide to focus on dairy cows and dairy welfare assessment. The presentation should involve at least three documents – if three documents (i.e. two dairy codes of practice – one from Canada and one from Australia and the European regulations on the keeping of dairy cows) are not available, the student should discuss this with the instructor. Students need to select a species with enough published information to base the assessment on. The presentation should be about 10 – 12 minutes long including time for discussion. Presentation must be analysis of the documents – similarities, differences, types of language used, focus of standards etc.

Marking Scheme:

Total Mark = 20

Teacher Mark: 15 marks

5 - Review of standards/codes - complete, comprehensive

5 - Organization - is the presentation easy to follow, good use of visuals?

5 - Overall impression

Peer Mark: 5 marks

Present a Critique

20%

Date: Wed., Feb 11

Learning Outcome: 1, 2, 3, 4

Students present a critique of a welfare assessment program, composed of a 10 minute presentation and a written summary of their analysis. Students will provide a comprehensive overview of an assessment program – the assessment program should be the same species as for the first activity and the culminating activity. For example, the student will provide a critique of the dairy welfare assessment from the US and provide details, measures, pros and cons.

Marking Scheme:

20 marks – 10 for the presentation and 10 for the written portion.

Assignment

Inter-observer Reliability trials

20%

Date: Mar 18 - Apr 1

Learning Outcome: 2, 4, 5

Students report results of inter-observer reliability trials conducted at a farm. Students will be required to complete data analysis and to provide a report structured as an academic poster. This can be done individually or in groups.

For this project, students are marked on their poster. Marking scheme:

5 marks - clear, concise

5 marks - elements covered (i.e., background, introduction etc.)

5 marks - originality

5 marks - overall impression

Presentation

Welfare Assessment/Audit

30%

Date: Mar 25 - Apr 1

Learning Outcome: 1, 2, 3, 4, 5

Students present a welfare assessment/audit they developed followed by a class question and discussion period. Students will use the research done throughout the course to design a practical animal welfare assessment protocol, including a check list that could be used by auditors/assessors in the field. The written report should include the referenced assessments, guidelines, codes of practice etc.

Marking scheme:

15 marks for the presentation + 15 marks for the written

Participation

Class Participation

10%

Learning Outcome: 1, 2, 3, 4, 5

Class Participation

Marking scheme: Individual's contribution to the class discussions and debates throughout the semester.

Last Day to Drop Course

The final day to drop Winter 2026 courses without academic penalty is the last day of classes: April 06

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 Standard Statements

Netiquette Expectations

For distance education courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your quiz or completing a quiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor online;
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system;
- Sharing your username and password; and
- Recording lectures without the permission of the instructor.

Courselink System Requirements

You are responsible for ensuring that your computer system meets the necessary system requirements. (<https://opened.uoguelph.ca/student-resources/system-and-software-requirements/>) Use the browser check (<https://courselink.uoguelph.ca/d2l/systemCheck/>) tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window)

Zoom Requirements

This course uses **Zoom** as a video communication tool.

System Requirements:

1. An internet connection – broadband wired or wireless (3G or 4G/LTE)
2. Speakers and a microphone – built-in or USB plug-in or wireless Bluetooth
3. A webcam or HD webcam - built-in or USB plug-in

Microsoft Teams System Requirements

This course may use **Microsoft Teams** as a video communication tool. A Webcam, a microphone to record video, and headphones/speakers to play back the recording are also needed. In order to use Microsoft Teams, you must meet the following technical requirements:

1. An internet connection – broadband wired or wireless (3G or 4G/LTE);
2. Speakers and a microphone – built-in or USB plug-in or wireless Bluetooth;
3. A webcam or HD webcam - built-in or USB plug-in;

Supported mobile platforms: Android 4.4 or later and iOS 10.0 or later.

Technical Skills

As part of your online experience, you are expected to use a variety of technology as part of your learning:

- Manage files and folders on your computer (e.g., save, name, backup, rename, delete, and check properties);
- Install software, security, and virus protection;
- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;
- Communicate using email (e.g., create, receive, reply, print, send, download, and open attachments);
- Navigate the CourseLink learning environment and use the essential tools, such as **Dropbox**, **Quizzes**, **Discussions**, and **Grades** (the instructors for this are given in your course);
- Access, navigate, and search the internet using a web browser (e.g., Chrome, Firefox, Microsoft Edge, Safari, etc.);
- Perform online research using various search engines (e.g., Google) and library databases.

Technical Support

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

Courselink Support

University of Guelph

Day Hall, Room 211

Email: courselink@uoguelph.ca (<https://calendar.uoguelph.ca/syllabi/commoncontext/detechnology/email%20to:courselink@uoguelph.ca>)

Tel: 519-824-4120 ext. 56939

Toll-Free (CAN/USA): 1-866-275-1478

Walk-In Hours (Eastern Time):

Monday thru Friday: 8:30 am-8:30pm

Phone/Email Hours (Eastern Time):

Monday thru Friday: 8:30am-8:30pm

Saturday: 10:00am - 4:00pm

Sunday: 12:00pm - 6:00pm

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 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 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/>).