

# ANSC 698 Special Topics: Bioethics & Animal Welfare

Fall 2018

Instructor: Dr. Courtney Daigle, 212B KLCT, 2-9171, [cdaigle@tamu.edu](mailto:cdaigle@tamu.edu)

When: Tuesday & Thursday from 9:35 – 10:50

Where: AGLS 109

## Course Goals:

Ethics are an integral component of animal agriculture and management. However, few animal science students receive formal ethical training. The purpose of this course is to provide students with a foundation for making ethical choices within their specific discipline and to gain an understanding about how these choices can impact animal welfare and policy.

## Specific Objectives

1. Explore the complex relationships between science and ethics with regard to animal agriculture
2. Gain knowledge regarding animal welfare science
3. Evaluate how science and ethics are integrated into public policy
4. Critically evaluate how animal health, behavior, and management contribute to animal welfare assessments

***A cautionary note:** Do not expect this course to resemble a philosophical documentary or National Geographic special in which animal behavior, management, and issues are often dealt with in an entirely descriptive manner. This is a graduate-level course in Animal Science, and carries the same assumptions and expectations as other graduate-level Animal Science courses.*

## Exams

There will be two (2) exams. Each exam will include a short essay portion.

## Quizzes

Lectures may begin with a short quiz that covers the material discussed in the previous lecture session. Quizzes will be unannounced.

## Text

Appleby MC, Mench JA, Olsson IAS, Hughes BO. 2011. Animal Welfare 2<sup>nd</sup> ed. CABI Publishing. ISBN: 1780640803, 9781780640808

## Late work policy

**A late assignment is an unacceptable assignment.** Any work turned in after the due date will be given a score of zero.

University Policy States: the student must notify his or her instructor in writing (acknowledged e-mail is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g., accident or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class.

The University requires that a student present an approved excuse before students can be given a make-up exam. It is the student's responsibility to arrange for a make-up exam. If Dr. Daigle does not hear from a student who missed an exam by the end of the second working day after that exam, the student will be given a grade of zero for that exam.

## Americans with Disabilities Act (ADA) Policy Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

## Academic Integrity Statement

*"An Aggie does not lie, cheat or steal, or tolerate those who do."* For additional information, please visit: <http://aggiehonor.tamu.edu>.

## Assignments

### 3R's Assessment

Students will identify a peer-reviewed and published manuscript that conducted research on animals outside of their discipline. Students will evaluate whether the number of animals used in the study were justified. Justifications will include reference to ethical principles, statistical power, impact of the research on the animal's welfare, and the significance of the results from the research.

### Defining Animal Welfare Assignment

Students will read articles by the founding fathers of animal welfare science. They will compare and contrast their views on how to scientifically assess animal welfare. Students will identify a third author and compare and contrast their views on animal welfare with those of the founding fathers

### Quantifying behavior assignment

Students will decode video recordings of animal behavior in different contexts. Students will analyze and synthesize results and make recommendations to mitigate the behavioral problems observed

### Bioethics Case studies

Students will be assigned case studies that address complex ethical issues in animal management and scientific research

### Hypothetical Animal Welfare Assessment Scenario

Students will create a hypothetical animal welfare assessment that includes relevant science-based welfare information to compare the welfare of animals under different management. The scenarios will be supported by videos, photographs, and information from the primary literature, husbandry manuals, and production records

## Grading

ASSIGNMENT	POINTS
Exam 1	100
Exam 2	100
3R's Assessment	25
Defining Animal Welfare	25
Quantifying behavior	25
Bioethics case studies	100
Welfare Scenario	150
Quizzes	50
<b>TOTAL</b>	<b>575</b>

Grade	Point Range
A	515-575
B	457-514
C	400-456
D	342-399
F	<342

## Course Schedule

Date	Event	Reading
Tues 8/28	Unit I: Bioethics - Introduction/overview	
Thur 8/30	Unit I: Bioethics - Ethics & animals: an introduction	Fraser D, et al., 1997. A scientific conception of animal welfare that reflects ethical concerns. <i>Animal Welfare</i> . 6:187-2005.
Tues 9/4	Unit I: Bioethics - Debate and deliberation	Sandoe, P, Christiansen SB, and Appleby MC. 2003. Farm animal welfare: the interaction of ethical questions and animal welfare science. <i>Animal Welfare</i> 12:469-478.
Thurs 9/6	Unit I: Bioethics - Facilitating moral reasoning: ethical accounting <b>Defining Animal Welfare Due</b>	Guhad F. 2005. Introduction to the 3Rs (Refinement, Reduction, and Replacement). <i>Journal of the American Association for Laboratory Animal Science</i> 44(2):58-59.
Tues 9/11	Unit I: Bioethics - Philosophical approaches to animal ethics	Croney, C. C., and S. T. Millman. "Board-invited review: The ethical and behavioral bases for farm animal welfare legislation." <i>Journal of Animal Science</i> 85.2 (2007): 556-565.
Thurs 9/13	Unit I: Bioethics - Conceptualizing animal welfare in the context of ethics	Clark, Beth, et al. "Citizens, consumers and farm animal welfare: A meta-analysis of willingness-to-pay studies." <i>Food Policy</i> 68 (2017): 112-127.
Tues 9/18	Unit I: Bioethics - Sustainable agriculture	Thompson, Paul B. "Agricultural sustainability: what it is and what it is not." <i>International Journal of Agricultural Sustainability</i> 5.1 (2007): 5-16.
Thurs 9/20	Unit I: Bioethics - Historical perspectives on the regulation of animal welfare <b>3Rs assignment due</b>	Rollin, Bernard E. "The regulation of animal research and the emergence of animal ethics: a conceptual history." <i>Theoretical Medicine and Bioethics</i> 27.4 (2006): 285-304.
Tues 9/25	Unit I: Bioethics - Current perspectives on the regulation of animal welfare	Rushen, J., N. Chapinal, and A. M. De Passille. "Automated monitoring of behavioural-based animal welfare indicators." <i>Animal Welfare-The UFAW Journal</i> 21.3 (2012): 339.
Thurs 9/27	<b>Exam 1</b>	
Tues 10/2	Unit II: Animal welfare problems - Hunger and thirst	Bateson P. "Assessment of pain in animals". <i>Animal Behaviour</i> (1991) 42:827-839.
Thurs 10/4	Unit II: Animal welfare problems - Pain	Sneddon LU et al., 2014. Defining and assessing animal pain. <i>Animal Behaviour</i> 97:201-212.
Tues 10/9	Unit II: Animal welfare problems - Fear and other negative emotions	Mason, Georgia J. "Stereotypies: a critical review." <i>Animal behaviour</i> 41.6 (1991): 1015-1037.
Thurs 10/11	Unit II: Animal welfare problems - Behavioral restriction	Panksepp, Jaak. "The cross-mammalian neurophenomenology of primal emotional affects: From animal feelings to human therapeutics." <i>Journal of Comparative Neurology</i> 524.8 (2016): 1624-1635.

*Bioethics & Animal Welfare*

Date	Event	Reading
		Hughes, B. O., and I. J. H. Duncan. "The notion of ethological 'need', models of motivation and animal welfare." <i>Animal Behaviour</i> 36.6 (1988): 1696-1707.
Tues 10/16	Unit II: Animal welfare problems - Human-Animal Interaction	Hemsworth, P. H. "Human–animal interactions in livestock production." <i>Applied Animal Behaviour Science</i> 81.3 (2003): 185-198
Thurs 10/18	Unit II: Animal welfare problems - Health and Disease <b>Quantifying behavior assignment due</b>	Rushen J and de Passille AMB. 1992. The scientific assessment of the impact of housing on animal welfare: a critical review. <i>Can. J. Anim. Sci.</i> 72: 721-743.
Tues 10/23	Unit III: Animal welfare assessment – Behavior	Rushen, Jeff. "Problems associated with the interpretation of physiological data in the assessment of animal welfare." <i>Applied Animal Behaviour Science</i> 28.4 (1991): 381-386.
Thurs 10/25	Unit III: Animal welfare assessment – Physiology	Koolhaas, J. M., et al. "Stress revisited: a critical evaluation of the stress concept." <i>Neuroscience &amp; Biobehavioral Reviews</i> 35.5 (2011): 1291-1301. Dawkins, Marian Stamp. "The science of animal suffering." <i>Ethology</i> 114.10 (2008): 937-945.
Tues 10/30	Unit III: Animal welfare assessment - Preference and motivation	Kirkden, Richard D., and Edmond A. Pajor. "Using preference, motivation and aversion tests to ask scientific questions about animals' feelings." <i>Applied Animal Behaviour Science</i> 100.1 (2006): 29-47.
Thurs 11/1	Unit III: Animal welfare assessment - Practical strategies to assess and improve welfare	Fraser, David. "Assessing animal welfare at the farm and group level: the interplay of science and values." <i>Animal Welfare</i> 12.4 (2003): 433-443.
Tues 11/6	Using animal welfare scenarios as teaching tools	Heleski, C. R., A. J. Zanella, and E. A. Pajor. "Animal welfare judging teams—a way to interface welfare science with traditional animal science curricula?." <i>Applied Animal Behaviour Science</i> 81.3 (2003): 279-289 Smith, Robert A., Daniel U. Thomson, and Tiffany L. Lee. "Beef Quality Assurance in Feedlots." <i>Veterinary Clinics of North America: Food Animal Practice</i> 31.2 (2015): 269-281.
Thurs 11/8	BQA – Structure and goal	Woiwode, R., et al. "Compliance of large feedyards in the northern high plains with the Beef Quality Assurance Feedyard Assessment." <i>The Professional Animal Scientist</i> 32.6 (2016): 750-757. Grandin, Temple. "Evaluation of the Welfare of Cattle Housed in Outdoor Feedlot Pens." <i>Veterinary and Animal Science</i> (2016).
Tues 11/13	BQA – logistics and interpretation	. Simon, G. E., B. R. Hoar, and C. B. Tucker. "Assessing cow–calf welfare. Part 1: Benchmarking beef cow health and behavior,

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Date	Event	Reading
Thurs 11/15	Mock BQA	handling; and management, facilities, and producer perspectives." Journal of animal science 94.8 (2016): 3476-3487. Simon, G. E., B. R. Hoar, and C. B. Tucker. "Assessing cow-calf welfare. Part 2: Risk factors for beef cow health and behavior and stockperson handling." Journal of animal science 94.8 (2016): 3488-3500.
Tues 11/20	Mock BQA	
Thurs 11/22	<b>No class: Thanksgiving</b>	
Tues 11/27	Elective procedures	Stull, Carolyn L., et al. "Evaluation of the scientific justification for tail docking in dairy cattle." Journal of the American Veterinary Medical Association 220.9 (2002): 1298-1303. Dewell, Reneé, et al. "Evaluation of an Interactive Workshop Designed to Teach Practical Welfare Techniques to Beef Cattle Caretakers and Decision Makers." Journal of Extension 53.4 (2015): 4IAW8.
Thurs 11/29	Euthanasia	Marti, S., et al. "Effect of anti-gonadotropin-releasing factor vaccine and band castration on indicators of welfare in beef cattle." Journal of animal science 93.4 (2015): 1581-1591. Mullins, C. R., et al. "Determination of swine euthanasia criteria and analysis of barriers to euthanasia in the United States using expert opinion." Animal Welfare 26.4 (2017): 449-459. Rault, J-L., T. Holyoake, and G. Coleman. "Stockperson attitudes toward pig euthanasia." Journal of animal science 95.2 (2017): 949-957.
Tues 12/4	<b>Hypothetical AW Scenario Due</b>	
Thurs 12/6	<b>No class: Reading day</b>	
Fri 12/8	<b>Exam 2</b>	