ANIMAL WELFARE SCIENCE AND ETHICS
Summer 2025 Term 4B, 211 Oaks Hall

Schedule
July 28 – July 31
Monday - Thursday, 1:00–4:00 PM
1 credit

Professor Contact Information
Dr. Heather Rally, DVM
Medical Director, Thrive Wild
Email: hrally@vermontlaw.edu

Course Objectives
- **Critically analyze** the historical, philosophical, and cultural foundations of human–animal relationships across time and societies.

- **Apply scientific principles** of animal biology, behavior, cognition, and ecology to assess animal welfare across diverse contexts.

- **Evaluate and compare** major ethical frameworks (e.g., utilitarianism, deontology, virtue ethics, feminist ethics) as they apply to animal welfare and rights.

- **Identify and critique** common practices involving animals in agriculture, research, entertainment, and conservation from both welfare and ethical perspectives.

- **Interpret and apply** animal welfare assessment tools, indicators, and frameworks.

- **Propose evidence-based solutions** to improve animal welfare in real-world scenarios, considering biological, ethical, and societal constraints.

Course Materials
Required readings are set out in the syllabus below. You do not need to purchase any materials for this course. All assigned materials will be available on the course Canvas page or online. Please make sure you are familiar with and able to access the course Canvas page before the first class.

You are required to read assignment materials prior to class.

Attendance

VLGS requires regular and punctual attendance in all classes. VLGS Academic Regulations provide that '[s]tudents who are absent from twenty (20%) percent of the regularly scheduled classes…shall be automatically withdrawn from the course with a grade of F-Wd.' Accordingly, if you accrue even one unexcused absence you will be automatically withdrawn from the class with a grade of F-Wd.

You are responsible for monitoring your compliance with this policy. If you have questions about VLGS's attendance policy, please contact Vice Dean for Students, Stephanie Clark, sclark@vermontlaw.edu.

Accommodations

VLGS encourages students with disabilities, visible or hidden, to seek appropriate accommodations. If you have a disability and would like to request an accommodation, please review the Vermont Law and Graduate School Disability Policy. At that link, you will also find an online Disability Accommodation Form. If you have questions about accommodations, please contact the Associate Dean of Diversity, Equity, and Inclusion, Lisa Ryan, lryan@vermontlaw.edu, 802-831-1079.

Office Hours

Immediately after class and by appointment.

Assessment

• Participation and professionalism (25%): Regular and punctual attendance, demonstrated engagement with assigned materials, and thoughtful participation in class discussions. Tardiness and low class participation will impact your grade.
• Written Assignment (25%) due by noon, Thursday, July 31st.
• Exam (50%)

NOTE In this class, we will work together to develop a learning community that is inclusive and respectful. This class will explore controversial topics that may be sensitive for some and evoke strong beliefs. We will encourage and appreciate expressions of different ideas, opinions, and beliefs so that conversations and interactions that could potentially be divisive turn, instead, into opportunities for development.

Written Assignment

Students will complete a written assignment to demonstrate their comprehension of topics covered in the first few days of classes and readings. Prof. Rally will provide students with details of the content and scope of the assignment during class.

Exam

Open-book, take-home, anonymous grading, posted on CANVAS @ 9:00 AM, Friday, August 1st, due 3:00 PM, Sunday, August 3rd.

Generative AI Policy

The use of generative AI to produce any assignment or exam for this class will be considered plagiarism, and subject to honor code investigation and enforcement. You may use built-in spelling and grammar checks (this does not include tools such as Grammarly).

Monday, July 28: Human-Animal Relationship & Ethical Foundations

Required Reading:

- Singer, P. (1974). All animals are equal. *Philosophical Exchange*, *1*, 103–116.

- Regan, T. (1985). The case for animal rights (abridged version). In P. Singer (Ed.), *In defense of animals* (pp. 13–26). New York: HarperCollins.

- Gruen, L. (2021). The moral status of animals. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition).

- Midgley, M. (1973). The concept of beastliness. *Philosophy*, *48*(183), 111–135.

Recommended Reading:

- Nussbaum, M. C. (2006). Beyond 'compassion and humanity': Justice for nonhuman animals. In *Frontiers of justice* (pp. 325–404). Harvard University Press.

- Meijer, E. (2019). The politics of (not) eating animals. *Aeon Magazine*. https://aeon.co/essays/the-personal-is-political-for-vegetarians-and-vegans

- Singer, P. (1975). *Animal liberation*. HarperCollins.

- Regan, T. (1983). *The case for animal rights*. University of California Press.

Tuesday, July 29: The Science of Animal Welfare

Required Reading:
- Broom, D. M. (2011). A history of animal welfare science. *Acta Biotheoretica*, *59*(2), 121–137.

- Fraser, D. (2009). Assessing animal welfare: Different philosophies, different scientific approaches. *Zoo Biology*, *28*(6), 507–518.

- Mellor, D. J. (2016). Updating animal welfare thinking: Moving beyond the 'Five Freedoms' towards 'A Life Worth Living'. *Animals*, *6*(3), 21.

Recommended Reading:
- Boissy, A., et al. (2007). Assessment of positive emotions in animals to improve their welfare. *Physiology & Behavior*, *92*(3), 375–397.

- Fraser, D. (1999). Animal ethics and animal behavior science: Bridging the two cultures. *Applied Animal Behaviour Science*, *65*, 171–189.

- Bekoff, M. (2007). *The emotional lives of animals: A leading scientist explores animal joy, sorrow, and empathy—and why they matter*. New World Library.

- Safina, C. (2016). *Beyond words: What animals think and feel*. Henry Holt and Co.

Wednesday, July 30: Animals in Society – Industries, Practices & Controversies

Required Reading:

- DeGrazia, D. (2007). On the ethics of animal research. In R. E. Ashcroft, A. Dawson, H. Draper, & J. R. McMillan (Eds.), *Principles of healthcare ethics* (2nd ed., pp. 689–695). Wiley.

- D'Silva, J. (2006). Adverse impact of industrial animal agriculture on the health and welfare of farmed animals. *Integrative Zoology*, *1*, 53–58.

- Pierce, J., & Bekoff, M. (2018). A postzoo future: Why welfare fails animals in zoos. *Journal of Applied Animal Welfare Science*, *21*(1), 1532.

- Wallach, A. D., Bekoff, M., Batavia, C., Nelson, M. P., & Ramp, D. (2018). Summoning compassion to address the challenges of conservation. *Conservation Biology*, *32*(6), 1255–1265.

Recommended Reading:
- Warwick, C., & Steedman, C. (2021). Regulating pets using an objective positive list approach. *Journal of Veterinary Behavior*, *42*, 53.

- Brando, S. (2016). Wild animals in entertainment. In B. Bovenkerk & J. Keulartz (Eds.), *Animal ethics in the age of humans* (pp. 295–318). Springer.

- Jacobs, B., et al. (2021). Putative neural consequences of captivity for elephants and cetaceans. *Reviews in the Neurosciences*, *33*, 439.

Thursday, July 31: Shaping the Future of Animal Welfare — Policy, Advocacy & Innovation

Required Reading:
- Marceau, J. (2018). How the Animal Welfare Act harms animals. *Hastings Law Journal*, *69*, 925.

- Furtado, T., Rogers, S., & White, J. (2022). Animal advocacy and human behavioural change. In *Routledge handbook of animal welfare* (pp. 467–479). Routledge.

- Marino, L. (2016). Why animal welfarism continues to fail. *Animal Sentience*, *1*(5).

- Galindo, F., Marchant, J. N., & Tadich, T. (2024). The science of animal welfare in the One Health–One Welfare agenda: Local solutions for global challenges. *Revue Scientifique et Technique de l'OIE*, *Special Edition*, 129–140.

Recommended Reading:

- Ingber, D. E. (2022). Human organs-on-chips for disease modeling, drug development, and personalized medicine. *Nature Reviews Genetics*, *23*(7), 467–491.

- Fagerstone, K. A., et al. (2014). Fertility control to mitigate human–wildlife conflicts: A review. *Wildlife Research*, *41*(1), 1–21.

- Cohen, S. (2014). The ethics of de-extinction. *NanoEthics*, *8*(2), 165–178. https://doi.org/10.1007/s11569-014-0201-2

- Littin, K. E., & Mellor, D. J. (2005). Strategic animal welfare issues: Ethical and animal welfare issues arising from the killing of wildlife for disease control and environmental reasons. *Revue Scientifique et Technique*, *24*(2), 767–782.

- Sebo, J. (2018). The ethics and politics of plant-based and cultured meat. *Les Ateliers de l'éthique / The Ethics Forum*, *13*(1), 159–183.

- Sebo, J. (2023). Insects, AI systems, and the future of legal personhood. *Animal Law Review*.

- Wise, S. M. (2011). *Rattling the cage: Toward legal rights for animals*. Basic Books.