



Animal Welfare and Behavior

Spring 2017



M/W 2-3:15pm

Location: TBD

Instructor: Becca Franks

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Course Objectives:

Welcome! In this course you will gain an overview of animal welfare and the science associated with describing the well-being of animals under our care. Students will drive much of the course content—selecting articles to discuss, presenting current events, leading group discussions, and importantly, choosing a species to represent throughout the semester. Through this experience, you will learn how to critically evaluate scientific papers, juggle multidimensional and often conflicting lines of evidence, and communicate your passion for animals in an effective way. The first third of the course will provide you with an overview of the issues at hand. The second third of the course will allow you to delve deep into the specific topics related to animal welfare. In the final third of the course, we will take a step back to consider big picture questions related to scientific validity and to locate promising areas for future research.

Required texts:

A selection of review articles, thought pieces, news items, and scientific articles will be listed on NYU Classes.

Grading Overview:

Throughout the course you will present one current event (2 points), introduce 3 species of your choosing (3 points), write six one-page responses to the weekly readings (5 points each = 30 points total), present 1 scientific article (10 points), and synthesize your thoughts into a final presentation (30 points) and paper (30 points).

Schedule:

<i>Session</i>	<i>Day</i>	<i>Topic</i>	<i>Assignment Due</i>
Part 1: The Lay of the Land			
1.01	M: 23/Jan	Intros & Issues	None
1.02	W: 25/Jan	Animal Diversity	R1.02
1.03	M: 30/Jan	Species Intros	Species selections
1.04	W: 01/Feb	Communicating Science	Schedule preferences
1.05	M: 06/Feb	Tinbergen's 4 Questions + 1	R1.05
1.06	W: 08/Feb	Levels of Analysis	R1.06
1.07	M: 13/Feb	History of Animal Welfare	R1.07
1.08	W: 15/Feb	Around the Globe	Paper selections
	M: 20/Feb	President's Day	
Part 2a: The Individual			
2.01	W: 22/Feb	Motivation—What an Animal Wants	R2.01 + CE
2.02	M: 27/Feb	Motivation Discussion	R2.02 + WW/SP
2.03	W: 01/Mar	Emotion—How an Animal Feels	R2.03 + CE
2.04	M: 06/Mar	Emotion Discussion	R2.04 + WW/SP
Part 2b: The Environment			
2.05	W: 08/Mar	Environmental Enrichment (EE)	R2.05 + CE
	M: 13/Mar	Spring Recess	
	W: 15/Mar	Spring Recess	
2.06	M: 20/Mar	EE Discussion	R2.06 + WW/SP
2.07	W: 22/Mar	Cognitive Enrichment & Challenges	R2.07 + CE
2.08	M: 27/Mar	Cog. Enr. & Challenges Discussion	R2.08 + WW/SP
Part 2c: The Life and Relationships			
2.09	W: 29/Mar	Natural Living	R2.09 + CE
2.10	M: 03/Apr	Natural Living Discussion	R2.10 + WW/SP
2.11	W: 05/Apr	Abnormal Behavior	R2.11 + CE
2.12	M: 10/Apr	Abnormal Behavior Discussion	R2.12 + WW/SP
2.13	W: 12/Apr	Human-Animal Relations	R2.13 + CE
2.14	M: 17/Apr	Human-Animal Relations Discussion	R2.14 + WW/SP
Part 3: The Big Picture			
3.01	W: 19/Apr	Workshop Presentations & Papers	Outlines
3.02	M: 24/Apr	Scientific (In)Validity 1	R3.01
3.03	W: 26/Apr	Scientific (In)Validity 2	R3.02
3.04	M: 01/May	(Re)Defining Animal Welfare	R3.03
3.05	W: 03/May	Presentations	Final presentation
3.06	M: 08/May	Presentations (last class)	Final presentation

Assignments:

RX.XX – the reading assigned each week will be posted on NYU Classes (see “Readings” section below). You should read the reading before class. Exact readings TBD and subject to modification throughout the semester.

Species selection (3 points) – find 3 species that interest you. For each species, write two paragraphs: (i) one describing their life history and (ii) one discussing the potential welfare issues, science, and solutions for that species. In class, we will talk about the three species you have selected. At the end of class 1.03, you will be assigned one of your species to represent for the rest of the semester.

Schedule preferences – come to class with an idea of when you would like to present: (i) a news item/current event (CE), (ii) the scientific paper (SP) that you will present in Part 2, and (iii) your final presentation (last two days of class).

Paper selections – come to class with 3 paper selections for your scientific paper (SP) presentation. While your selections will not be graded, they are one of the most important things you will do in the course. One of the papers you select will be read and discussed by the entire class, so be sure to bring in a good selection—it will determine our reading list! We will cover what makes for a good paper selection in the Communicating Science class (1.04), but please feel free to contact me with your questions and ideas before class.

Current Event (CE; 2 points) – 5-minute presentation of an animal welfare current event from a news source of your choice.

Weekly Writing (WW; 5 points each, 6/semester = 30 points total) – write a one-page synthesis of the week’s topic and how it relates to the species you are representing. You do **not** have to turn in a WW the week you are doing your Scientific Presentation.

Scientific Presentation (SP; 10 points) – present and lead a discussion of a scientific paper of your choosing. You should pay special attention to the methods section and critically evaluate how the authors have operationalized what they sought to study. Are they measuring what they say they are measuring? What could they have done better to get at their research question? Do you think they found what they claim to have found? What could they have done to strengthen their conclusions? What are alternative implications for their findings? How does what they found relate to previous work in the field? While all students will have read the paper, you will be the expert and in charge of guiding them through the implications of the article. You do **not** need to turn in a WW the week you are doing your SP.

Outlines (10 points presentation outline; 10 points paper outline) – bring outlines of your final presentation and paper to class to be workshopped by fellow students.

Final presentation (20 points) – on one of the last two days of class, you will give a presentation covering the important issues and welfare challenges facing your species as well as potential solutions moving forward that may include ideas for new research.

Final paper (20 points) – a 12-page paper covering the important issues and welfare challenges facing your species as well as potential solutions moving forward that may include ideas for new research. Due during exam week.

Basic Expectations:

Attendance and politeness—including punctuality, attention, and engagement—are vital!

Absences & Late Assignments: If something comes up and you are unable to attend class and/or need to turn in assignments late—that is, you hand in an assignment after the class in which it was due—first, let me know as soon as possible! I strongly encourage you to do whatever you can to make sure that you keep on-top of your work and are present during class. If there are extenuating circumstances, please bring in documentation otherwise your grade will be docked 1 point per day late and/or for every class missed. At my discretion, in exceptional cases, you may be allowed to complete a bonus assignment to make-up lost points.

Plagiarism: results in failure in the class and referral to an academic dean. Plagiarism includes: copying sentences or fragments from any source without quotes or references; not citing every source used in your papers; citing internet information without proper citation; presenting someone else’s work as your own; or copying verbatim from any source. You are subject to CAS’s guidelines on plagiarism: <http://cas.nyu.edu/page/ug.academicintegrity>

Disability disclosure statement: academic accommodations are available to any student with a chronic, psychological, visual, mobility, learning disability, or who is deaf or hard of hearing. Students should please register with the Moses Center for Students with Disabilities at 212-998-4980.

Readings: (TBD & List subject to change)

R1.02—Animal Diversity

- TBD

R1.05—Tinbergen’s 4 Questions + 1

- Gordon M. Burghardt, “Amending Tinbergen: A Fifth Aim for Ethology,” in *Anthropomorphism, Anecdotes, and Animals* (Anthropomorphism, anecdotes, and animals, 1997), 254–76.

R1.06—Levels of Analysis

- Jerry Hogan, “Causation: The Study of Behavioural Mechanisms,” *Animal Biology* 55, no. 4 (2005): 323–41, doi:10.1163/157075605774840969.
- P W Anderson, “More Is Different,” *Science* 177, no. 4047 (1972): 393–96.

R1.07—History of Animal Welfare

- David Fraser, “Animal Behaviour, Animal Welfare and the Scientific Study of Affect,” *Applied Animal Behaviour Science* 118, no. 3–4 (May 2009): 108–17, doi:10.1016/j.applanim.2009.02.020.

R2.01—Motivation: What an Animal Wants

- MS Dawkins, “From an Animal’s Point of View: Motivation, Fitness, and Animal Welfare,” *Behavioral and Brain Sciences* 13 (1990): 1–61.
- Georgia J Mason, J Cooper, and C Clarebrough, “Frustrations of Fur-Farmed Mink,” Journal Article, *Nature* 410, no. 6824 (2001): 35–36, doi:10.1038/35065157.

R2.02—Motivation Discussion

- TBD by student presenters

R2.03—Emotion: How an Animal Feels

- Emma J Harding, Elizabeth S Paul, and Michael T Mendl, “Animal Behaviour: Cognitive Bias and Affective State.,” *Nature* 427, no. 6972 (2004): 312.
- Michael T Mendl, O H P Burman, and E S Paul, “An Integrative and Functional Framework for the Study of Animal Emotion and Mood,” Journal Article, *Proceedings of the Royal Society B-Biological Sciences* 277, no. 1696 (2010): 2895–2904, doi:10.1098/rspb.2010.0303.

R2.04—Emotion Discussion

- TBD by student presenters

R2.05—Environmental Enrichment

- Jason V Watters, “Toward a Predictive Theory for Environmental Enrichment.,” *Zoo Biology* 28, no. 6 (November 2009): 609–22, doi:10.1002/zoo.20284.s

R2.06—Environmental Enrichment Discussion

- TBD by student presenters

R2.07—Cognitive Enrichment & Challenges

- C L Meehan and J A Mench, “The Challenge of Challenge: Can Problem Solving Opportunities Enhance Animal Welfare?,” Journal Article, *Applied Animal Behaviour Science* 102, no. 3–4 (2007): 246–61, doi:10.1016/j.applanim.2006.05.031.
- Marek Spinka and Françoise Wemelsfelder, “Environmental Challenge and Animal Agency,” in *Animal Welfare*, ed. Michael C. Appleby, 2nd ed., 2011, 27–43.

R2.08—Cognitive Enrichment & Challenges Discussion

- TBD by student presenters

R2.09—Natural Living

- A Stolba and D G M Woodgush, “THE ASSESSMENT OF BEHAVIORAL NEEDS OF PIGS UNDER FREE-RANGE AND CONFINED CONDITIONS,” Journal Article, *Applied Animal Ethology* 7, no. 4 (1981): 388–89, doi:10.1016/0304-3762(81)90072-9.

R2.10—Natural Living Discussion

- TBD by student presenters

R2.11—Abnormal Behavior

- Georgia J Mason, “STEREOTYPIES - A CRITICAL-REVIEW,” Journal Article, *Animal Behaviour* 41 (1991): 1015–37, doi:10.1016/s0003-3472(05)80640-2.

R2.12—Abnormal Behavior Discussion

- TBD by student presenters

R2.13—Human-Animal Relations

- Barbara Smuts, “Encounters With Animal Minds,” *Journal of Consciousness Studies* 8, no. 5 (2001): 293–309.
- Catherine E Amiot and Brock Bastian, “Toward a Psychology of Human–animal Relations.,” *Psychological Bulletin* 141, no. 1 (2015): 6–47, doi:http://dx.doi.org/10.1037/a0038147.

R2.14—Human-Animal Relations Discussion

- TBD by student presenters

R3.01—Scientific (In)Validity 1

- The Economist, “How Science Goes Wrong,” 2013, 7–10.
- John P a Ioannidis, “Why Most Published Research Findings Are False.,” *PLoS Medicine* 2, no. 8 (August 2005): e124, doi:10.1371/journal.pmed.0020124.
- David P Wolfer et al., “Laboratory Animal Welfare: Cage Enrichment and Mouse Behaviour.,” *Nature* 432, no. December (2004): 821–22, doi:10.1038/432821a.

R3.02—Scientific (In)Validity 2

- Albert-László Barabási, “The Network Takeover,” *Nature Physics* 8, no. 1 (2011): 14–16, doi:10.1038/nphys2188.
- Video: Jacob Bronowski, “Knowledge or Certainty,” *The Ascent of Man*, Episode 11 (1973) BBC

R3.03—(Re)Defining Animal Welfare

- David Fraser et al., “A Scientific Conception of Animal Welfare That Reflects Ethical Concerns,” *Animal Welfare* 6, no. 3 (1997): 187–205.
- Georgia J Mason and Michael T Mendl, “Why Is There No Simple Way of Measuring Animal Welfare,” *Animal Welfare* 2 (1993): 301–19.