

APBI 415 – Applied Animal Behaviour
9:30 – 10:50am Tuesdays and Thursdays, MacMillan Room 258

Instructor

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Course Description

This course is focused on the application of principles and research methods of animal behaviour to practical problems in the care of farm, companion, wild and research animals, and human-wildlife conflict.

Expected Learning Outcomes

By the end of this course, you will:

1. be able to identify, define and solve problems in applied animal behaviour related to the management of companion, research, production and wild animals;
2. apply your understanding of behaviour to address practical issues in animal care and use, as well as human-animal interactions;
3. develop tools to use when reading and critiquing scientific articles;
4. analyse, critique, interpret, and summarize scientific research findings;
5. develop skills to communicate effectively through written and oral means;
6. develop skills in critical thinking and problem solving;
7. and generate ideas for new research, and gain experience in the development of research proposals.

Suggested textbook readings

The textbooks below are on hold for use in the library reserve (2 hrs). An older version (2002) of the Jensen book is available online through the UBC library. I would strongly suggest purchasing *Measuring Behaviour* if possible.

- Jensen, P. 2009. *The ethology of domestic animals: an introductory text*. CABI, Wallingford, UK.
- Martin, P. and Bateson, P.P.G. 2007. *Measuring behaviour: an introductory guide*. Cambridge University Press, NY.

Marking Scheme

There will be no formal examinations. There is an emphasis on the comprehension of concepts, critical thinking, and effective communication, as evidenced by assignments, in-class discussions, a research paper, and oral presentations.

First Essay – scientific paper critique	5
Ethogram assignment	10
First oral presentation	5
Second Essay – synthesis of research article	10
Research project	30
Final oral presentation on research project	10
Weekly article critiques	14
Class participation	16
<hr/> Total	<hr/> 100

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The **first essay** is worth 5 points and will be no longer than 3 pages in length, double-spaced, 12 pt font. The essay will involve a critical analysis of an assigned scientific paper on applied animal behaviour.

The **ethogram assignment** is worth 10 points total. This assignment will involve the creation of a behavioural catalogue and data sheets based on the observation of a group of animals.

The **first oral presentation** is worth 5 points and will reflect your ability to lead a group discussion on your assigned research article, as well as to summarize your small group discussion for the entire class. The presentation is to be 5-7 min in length.

The **second essay** is worth 10 points and will be no longer than 6 pages in length, double-spaced, 12 pt font. The essay is based on a research article you will be discussing in a group setting. The essay will involve the critique of your assigned article as well as the inclusion of papers provided by other group members, if applicable. The second essay is due two weeks after your assigned group lead discussion.

For your **research project** you will design a research question and project, conduct hands on research, conduct a basic analysis, and write up your results. You will be responsible for handing in a written research hypothesis for approval. You will also be handing in your research data organization which will include a detailed ethogram and a sample data sheet. A detailed outline will also be required. Your research paper will include a literature review on your research topic. Your research project will consist of collecting observational behaviour data from captive animals (e.g., Vancouver Aquarium, the Vancouver Zoo, in a research lab on campus, or at a local farm such as Agassiz) or animals in a wild/urban setting (e.g., Stanley Park, local park). You will be responsible for designing your data collection method, as well as for collecting and presenting your data. The research project will be worth 30 pts total: 1 pt for the research hypothesis, 2 pts for the research data organization materials, 2 pts for the detailed outline, and 25 pts for the final research paper.

The **final presentation** is worth 10 points and will consist of a 10-12 min presentation, with 3 min for questions. The presentation will involve a complete overview of your research project – hypothesis, data collection methods and analysis, and conclusions.

Weekly article critiques are worth 14 points total; 2 points will be lost for every critique that is not turned in at the beginning of class (**no late critiques accepted**). Partial points may be given for a poorly written critique.

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Class participation is worth 16 points. Points will be earned based on active participation in group discussions, attendance, contribution of journal articles, and peer review of final presentations. Class participation will be evaluated by the instructor and/or teaching assistant each class, with a mark recorded for each student using the following rubric:

Grade	Criteria
0	Absent from class. If the student's absence is approved by the instructor (e.g., due to illness), that class will not be included in the calculation of the course mark.
1	Demonstrates poor preparation. The student demonstrates infrequent involvement with class discussions and has only a basic knowledge of the topic discussed. The student does not show evidence of trying to interpret or analyse the readings or apply them in other contexts. Instead the student offers straightforward information (e.g., straight from reading).
2	Demonstrates good preparation. The student demonstrates consistent ongoing involvement. The student has analysed the readings and topics well and shows evidence of trying to interpret and relate the readings to other materials. The student contributes well to ongoing discussions (e.g., asks questions and makes comments) and responds in a constructive way to other students' comments.
3	Demonstrates excellent preparation. The student has analysed the readings and topics exceptionally well. The student relates the readings to other materials and offers a well-structured analysis of the topic. The student contributes in a significant way to ongoing discussion and responds very thoughtfully to other students' comments. Student may suggest alternative ways of approaching material and challenges the materials at hand with substantiated evidence.

To calculate the final participation score, at the end of the course all of the participation scores will be summed, divided by the number of classes to obtain a percentage, and then your score will be multiplied by 16.

Tuesdays

Review articles will be assigned for each Tuesday. Each student is responsible reading the assigned review article before coming to class. In addition, a 2-paragraph critique following the critical reading handout (double-spaced, 12 pt font) of the review article is to be handed in at the beginning of class. To participate in the class discussion, the critique must be completed.

Thursdays

On Thursdays we will have smaller group discussions on a research article related to the topic of the week. Each week at least four people will be assigned to be a group leader. This group leader is responsible for facilitating a group discussion in class on their assigned Thursday. As a group member you will be responsible for reading the article prior to class. Group members must bring with them to Thursdays class the following information in written format to be handed in to your group leader: (1) one positive critique of the assigned article, (2) one negative critique of the article, and (3) a peer-reviewed article related to the topic being discussed (article must be presented to your group leader either in the form of a full written citation or an actual copy of the article). Group leaders will be assigning a mark to each of their group members for participation in the group discussion, including the written materials listed above.

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Tentative Schedule

Week	Topic	Due
Jan 3 Jan 5	Introductions and animal behaviour overview Measuring behaviour	
Jan 10 Jan 12	Ethogram assignment	First Essay
Jan 17 Jan 19	Behaviour and stress physiology Group discussions	Review article critique Research hypothesis; Group article critique
Jan 24 Jan 26	Abnormal behaviours Group discussions	Ethogram assignment; Review article critique Group article critique
Jan 31 Feb 2	Welfare Group discussions	Review article critique Research data organization; Group article critique
Feb 7 Feb 9	Social behaviour Group discussions	Review article critique Group article critique
Feb 14 Feb 16	Motivation and Learning Group discussions	Research paper outlines ; Review article critique Group article critique
Feb 21 Feb 23	Reading Break Week – no classes	
Feb 28 March 2	Personality Group discussions	Review article critique Group article critique
March 7 March 9	Human-wildlife conflict Group discussions	Review article critique Group article critique

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March 14 March 16	Final Presentations	
March 21 March 23	Final Presentations	
March 28 March 30	Final Presentations	
April 4 April 6	Final Presentations	Research paper – April 7

Important Dates

Jan 17 – last day to withdraw without a ‘W’ on your transcript

Feb 10 – last day to withdraw; ‘W’ will appear on transcript

Essay 2 is due 2 weeks after your scheduled Group Lead Discussion

April 6 – Final research paper due