

Animal Behaviour

**A lecture-, project-, and discussion-based course
Winter 2021**

Course Code: BIOL3230-1

Professor: Dr. Christina Semeniuk

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Course Description

The overall goal of the course is to introduce students to the diversity of animal behaviours. In doing so, the course provides a rigorous scientific framework of key concepts, theories and models in which to understand behaviour from mechanistic, ecological and evolutionary perspectives. In specific, we will focus on “proximate questions” of behaviour (i.e., the mechanistic causes of behaviour), reviewing genetic, hormonal, neural and environmental influences on the development and expression of behaviour, as well as “ultimate questions” of behaviour (i.e., how behaviours are shaped and constrained by ecology and evolutionary history). In each circumstance, behavioural analyses will be integrated into an explicitly evolutionary framework, as we will be discussing behaviours that contribute to individual-level fitness, and exploring a variety of topics including the genetic, physiological, neural and developmental bases of behaviour, foraging, habitat selection, predator-prey interaction, communication, reproduction and mating systems, parental care and social behaviour.

Expectations for the Course

Researchers of animal behaviours relay the importance and excitement of their work in a number of formats. For this course, students will be applying the scientific method to engage in observational and experimental study and develop an innovative research project that contributes to the discipline. Following completion of the course, you should have a strong grasp of the following:

- 1) critically evaluate major topics in animal behaviour
- 2) exhibit critical and integrative thinking skills about behavioural patterns and processes
- 3) identify the ecological and evolutionary pressures that shape behaviour
- 4) apply evolutionary theory to understand how and why animals behave the way they do
- 5) apply the scientific method to study testable hypotheses of behaviour
- 6) design studies that include both proximate and ultimate elements of behaviour
- 7) formulate answerable questions about animal behaviour using a variety of methods

Assessment will come from a diversity of sources, including a mid-term and final exam, meaningful applied assignments, as well as a self-assessment of the student’s performance in the course.

Textbooks

There are no required textbooks. However, you may wish to access books available in the Leddy Library as references to help you understand lecture material and topics covered in tutorials.

Examples: ***Animal Behavior – Concepts, Methods, Applications*** – Nordell & Valone, ***Animal behavior: an evolutionary approach*** – Alcock, ***Animal Behaviour: Evolution and Mechanisms*** – Kappeler. 

Final Drop Date for this Course - **April 16th, 2022**

Assessment and Marking Scheme

1) Scientific Article Project (25% of final grade). Pairing of 2 students will prepare a mock scientific article based on video-recordings of animal behaviours supplied by the Graduate Assistants. The purpose is to inform a scientific audience of a noteworthy, adaptive behaviour that you, as an animal-behaviour research scientist, have uncovered in a particular species. You are responsible for coming up with your own interpretation of the behaviour(s) in question. Group membership will be self-assigned. Pairs will be evaluated on: your capability to creatively think of testable hypotheses, applying the scientific method, developing an experimental design, demonstrating and describing relevant analyses and results, and situating the synopsis within the current field of Animal Behaviour. Your GAs will be available to discuss how to develop an effective and noteworthy scientific paper. The goal of this assignment is to allow you to ***apply what you have learned in the course to effectively present complex ideas and topics in report form as practice for future employers/collaborators/peers in a research environment.*** Your project outline is due to your assigned GA by 3 pm, **March 2nd**, and your Scientific Article is due **March 30th** (by 3 pm).

2) Science Outreach (8% of final grade). Your same group will additionally prepare two mock Instagram science visuals of your research project to engage audience types: (i) general public and (ii) other academics. You will be graded on your capability to creatively and clearly convey the main details (ultimate and proximate) of your research topic and results through the visuals, caption, and relevant account tags ('@') and #hashtags. The purpose is to make the study as relevant and as discoverable as possible! The goal of this assignment is to allow you to ***gain skills in summarizing and communicating complex topics by using language and a format that is approachable to future employers and the public.*** Your research synopsis is due to your assigned GA by 3 pm, **April 8th**.

****Please note:** Both partners must agree to receive the same mark on their Assignments. Even if one partner later feels they worked harder than the other, both partners will receive the same grade. ******

3) Mid-Term Exam (25% of final grade). (in class unless otherwise specified) UPDATE

The mid-term exam consists of an 'open-book' mixture of short-answer and long-answer (i.e., interpretation and problem-solving) questions based on material and concepts covered in class (lectures 1-9). **The mid-term exam will take place on-line on February 28th.** The time necessary to complete the exam is no more than 75 minutes (i.e., length of the class); however, you will be given 24 hours to complete the exam (from 1:00pm February 28, 2022 to 1:00pm March 1, 2022).

4) Final Exam (40% of final grade). (in person unless otherwise specified) The final exam similarly consists of a mixture of short-answer and long-answer questions based on all of the material and concepts covered in class (lectures 1-9, with a stronger focus on lectures 10-20). The specific exam format will depend on whether the exam is in-person or online. We do not have this information yet. To succeed, you will be expected to display understanding, not merely to recite facts. Developing this

skill early will help you succeed in this and other upper-level courses. **The exam will take place TBD.**

5) Student Self-Assessment (2% of the course grade). Involving you, the student, in the course assessment process is increasingly viewed as critical for the proper development of teaching and learning outcomes for the course. At the end of the semester, a short question and answer assessment will be administered which will ask you about your experiences in the course. Returning the completed assessment about your experiences this semester will generate **2% towards your course grade.** **Due towards end of semester before the last day of class (April 18th).** Exact date TBD.

Format for the Winter 2022 Semester

As we are all aware, our classes this semester will begin virtually (**via Zoom** – lecture link below) until at least **January 31st** when the University will announce when we can begin holding in-person classes.

UPDATE:

Live Class Lecture Hours - Mondays and Wednesdays, 1:00pm-2:20pm **in-person AND online via Zoom:**

<https://us02web.zoom.us/j/85955281019?pwd=QVpYcnc4a0Z1V3owc0xLRmE4Slc5QT09>
Meeting ID: 859 5528 1019 **Passcode:** 818609

Lecture Format

Lecture slides are posted as PowerPoint files on the course Blackboard website prior to each live lecture. You are strongly advised to download the slides before class and have them with you during lectures. To encourage everyone to attend lectures, key portions of text have been removed from the uploaded slides. To begin the semester, lectures will be presented live via Zoom up until January 31st, until we return to in-person lectures.

As of January 31st, lectures will be presented face-to-face in Odette Building Room 104, from 1:00pm – 2:20pm, Mondays and Wednesdays. I will also be live-streaming the class using the Zoom link posted above for students who are unable to attend in-person. As before, you will be responsible for attending all live lectures (in-person or online) - no recordings of the lectures will be made available. The *only* exception is for students who have submitted an illness report (see below, under “Missing Assignments / Exams”). When I receive a copy of evidence of your submitted report, I will arrange to release the recorded lecture. Recordings cannot be made available for any other reason.

As per University regulations, individuals must complete their daily [self-assessment](#) using the Safe Lancer app or webform **BEFORE** coming to campus so that they have their green badges ready to scan at the [QR scanning stations](#) upon entering designated entrances to buildings. If possible, please try your best to manage your time so that you arrive to class on time given these restrictions.

Students will still have regular opportunities to ask questions during the lecture, either by asking in-person, or by writing questions via the Chat window. Students are responsible for all material presented during the lectures, whether it is presented on the slides or not. The posted lecture slides

are a tool to strengthen your comprehension, so you can concentrate on the main points of the topics being presented. They are not meant as a replacement for attending lectures, online or in person.

Lecture Schedule and Topics (as of January 28th)

Lecture	Date	Topic
00-1	January 17/19	Course Overview / Introduction to Animal Behaviour
2-3	January 24/26	Explaining Behaviours / Evo-Genetic basis for behaviour
4-5	Jan 31/Feb 2	Neuro-phys & Behaviour / Studying Behaviour
6-7	February 7/9	Studying Behaviour II / Innate & Learned Behaviour
8-9	February 14/16	Foraging Behaviour / Predator-Prey Behaviour
No Lectures	February 21/25	Family Day/Reading Week
Mid-term Exam	February 28	Mid-Term Exam (Lectures 1-9)
10	March 2	Living in Groups
11-12	March 7/9	Communication & Signals / Habitat Selection
13-14	March 14/16	Territoriality / Movement Ecology
15-16	March 21/23	Sexual Selection / Mate Choice Mechanisms
17-18	March 28/30	Parental care / Sociality & Cooperation
19-20	April 4/6	Animal Personality / Conservation and Behaviour
	April 11	Spillover Content
Final Exam	TBA	Date and Time to be determined

Virtual Student Hours – Lecture material, Dr. Semeniuk

Thursdays, 13:00-14:00 over Zoom w/ waiting room enabled.

<https://us02web.zoom.us/j/81173167153?pwd=ZjhTYUFabVdUS0pFeWUrV3FEemFjdz09>
 Meeting ID: 811 7316 7153 Passcode: 937440

Virtual Student Hours – Assignments, GA's

Your Graduate Assistants are Sara Dobney (dobney), Nick Lester (lestern), Megan Mickle (micklem), and Duncan Wright (duncan.wright.j@gmail.com). Your GA's will assign one hour of office hours per week. Please see your GA's for any questions concerning the assignemnt requirements for the course.

Additional Course Information

Plagiarism

Plagiarism, submitting someone else's work as your own, **will NOT be tolerated** in this class and will be referred to the Office of Student Integrity. For the University's official policy on plagiarism, go to <http://www.uwindsor.ca/aio/plagiarism-policies-and-definitions>. It is your responsibility to view this link. If you are unsure whether what you have written is plagiarism or not, ask either Dr. Semeniuk or your GA *prior* to submission.

Faculty of Science Honour Code

The office of the Dean of Science at the University of Windsor has developed the following honour code with which they expect all science-based students to follow:

Students of the University of Windsor pursue all endeavours with honour and integrity, and will not tolerate or engage in academic or personal dishonesty. As a student of the University of Windsor, I pledge to pursue all endeavours with honour and integrity, and will not tolerate or engage in academic or personal dishonesty.

As defined in the Windsor Student Code of Conduct and Senate Bylaw 31 on Academic Integrity, this pledge covers, but is not limited to cheating, plagiarizing or misrepresenting the ideas of someone else, unauthorized assistance or collaboration, and falsifying data.

Exam Conflicts (three exams in 24-hour period)

It is the student's responsibility to determine whether or not they have exam conflicts (mid-term or final) before they arise. If a conflict will occur, the student must contact the registrar's office and arrange the required paperwork prior to the exam. The professor cannot accept last-minute requests for exam delays due to conflicts without the registrar's permission.

UPDATE:

Even though I have provided 24 hours to complete the midterm exam, I will not consider a "3 exams in 24h period" to be a conflict if two other exams occur within the extended time period past the lecture time that day (i.e., after 2:20pm).

Missing Assignments/Exams

You are expected to complete 100% of the course material. There will not be make-up assignments, tests or make-up exams in this course. For students who miss the final exam OR the mid-term exam due to illness only: the University has an official policy for how to report illness during the Winter semester of 2022. The details are at the following website:

http://ask.uwindsor.ca/app/answers/detail/a_id/577

Specifically, you must fill out the "Report Illness" form on that website and submit it. Please note that it is an academic offense to report a sickness if you are not, in fact, sick. Then, please send Dr. Semeniuk an email message to confirm you have submitted an Illness Report through the above web link. Your grade will be pro-rated on the basis of your completed evaluations, as indicated in the course syllabus. You must notify Dr. Semeniuk **before** the start of the exam. The assignment /assessment components of this course are worth 35% of your final grade in this course, and the test components are worth 65% of your final grade in this course. If you miss the final exam due to illness, the mid-term will become worth 65% (and vice versa), so that your course grade continues to derive 65% from test components. Late assignments will be docked 10% per day. Exceptions to these policies will be made when you request a medical exemption (via the Illness Report) from Dr. Semeniuk **before** the due date, and if you receive support for the exemption by email. Please be mindful that you are working with a classmate on your Assignments, and so any delays will additionally affect your partner's grade.

Exam/Assignment Regrading

Every attempt will be made to grade exams and assignments completely and fairly, however mistakes do occur. If you feel a mistake has occurred after viewing your exam or having your assignment returned, you may submit a regrade petition to Dr. Semeniuk within one week of the exam viewing/returned assignment. A regrade petition must clearly and concisely state the reason(s) why

you think your answer is deserving of additional credit. Regrade requests will not be processed without a written petition. Dr. Semeniuk will not entertain requests for 1-2 points. Dr. Semeniuk and the GA's are primarily concerned with correcting fundamental oversights, not minor and debatable issues. Of course, we'll be happy to discuss any aspect of the exam with you during exam-viewing hours. The same applies for the assignments during office hours. The goal is to have you master the material and understand the concepts. Students who submit exams or assignments for regrading do so with the knowledge that we may regrade your entire exam/assignment, so your mark could go up, go down, or remain unchanged. You must also obtain written and signed permission from your Assignment partner for a regrade petition, since their mark may change as well. If you cannot attend the exam viewing, you have one week to set up an alternative time with your GAs after the exam-viewing date. Similarly, you have one week to discuss your assignment grade with your GAs after they have been returned. No requests will be considered after the one-week time limit.

****Please note:** Grades obtained from different GA's have been statistically analyzed by Dr. Semeniuk to ensure they are equivalent. In other words, there are no "harder-" or "easier-marking" GA's. **

****Please also note:** GA's will only respond to inquiries about assignment and exam grades in emails that have been sent 24 hours after the grades are released. In other words, please take the time to review and digest the feedback given; and remember, all emails and interactions should remain respectful. **

Respect for Diversity

Students from all backgrounds should feel welcome in this course and virtual classroom. The diversity that students bring to this class will be viewed as a resource, benefit, and strength. My intention is that all materials and activities included in this course are respectful of all forms of diversity including gender, sexuality, age, socioeconomic status, ethnicity, race, culture, religion, and ability. As this is a continuous journey of learning and self-reflection, I (like many people) am still in the process of learning about diverse perspectives and identities. Please share any suggestions for ways I can continue to improve the course for you or other students.

The discipline Animal Behaviour is not without its prejudices. Historically, much of its science has been built on a small subset of privileged voices, particularly white men. I therefore acknowledge that there may be overt or covert biases in the materials presented due to the lens in which it was written. It is expected that some of the material in this course may evoke strong emotions; please be respectful of others' emotions and be mindful of your own. It is critical that each class member show respect for all worldviews expressed in class. However, Animal Biology is, if anything, an evolving science that is trying to best adapt to changing norms and mores. I hold great optimism that the field is being strengthened by a more diverse set of experiences and voices. Please share your own.

Wellness Statement

Mental health concerns or stressful events (e.g. a global pandemic) may lead to diminished academic performance or reduce your ability to participate in daily activities. Free, easily accessible, confidential mental health services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of mental health services available on campus at <https://www.uwindsor.ca/studentcounselling/>.

Land acknowledgement

The University of Windsor sits on the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomie. I respect the longstanding relationships with First Nations people in this place in the 100-mile Windsor-Essex peninsula and the straits – les détroits – of Detroit.