Animal Behaviour (NESC and PSYO 2160)

Department of Psychology and Neuroscience

Fall 2026 edition

General statements:

1. Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the **Mi'kmaq**. We are all Treaty people.
2. Dalhousie University also acknowledges the histories, contributions, and legacies of **African Nova Scotians**, who have been here for over 400 years.
3. Simon Gadbois acknowledges the histories, contributions, and legacies of **Acadians**, who have been here since 1604 and who were deported en masse from 1755 to 1763.
4. All students are required to **comply with health and safety requirements** on campus, and should be considerate of others' health concerns. Non-compliance may be reported under the Code of Student Conduct.
5. Dalhousie is a **scent-free** working space.
6. Please note that, as far as Simon Gadbois is concerned, this class is a **safe space**. We can all contribute to a tolerant and discrimination-free atmosphere (for race, ethnicity, gender, sexual preference, language, religion, age, disability, etc.).

General course information:

- **Instructor**: Simon Gadbois sgadbois@dal.ca
    - Please call me by my first name, "Simon" (if possible, pronounced the French way, i.e., silent n), no "Dr.", "Prof", etc., needed.
- **Office hours:** Monday, 4:00 to 5:00 and Wednesday, 1:00 to 2:00 in LSC 3326
    - Office hours include midterm viewing except the week before the finals when I will be focussing on answering questions pertaining to the upcoming exams.
- **Emails:** sgadbois@dal.ca ; When sending an email to me, please ***add "2160" to the subject line***.
- **Lectures:** Monday and Wednesday, 2:30 to 4:00; C 236.
- **Laboratories:** N/A
- **Tutorials:** N/A
- **Course delivery / modality:** ***In-person only***

    - Lectures are not recorded but ***students are allowed to audio-record the lectures***.
    - Attendance is required and expected.
    - Note-taking by students is expected.
- **Course Description:** Using concepts from behavioural biology and psychology, animal behaviourists attempt to explain why animals behave the way they do. The course examines topics such as mating and social systems, mate choice, the evolution of behaviour, and animal communication. The behaviour of a wide range of animals is studied.
    - FORMAT: IN-PERSON Lectures
    - LECTURE HOURS PER WEEK: 3
- **Course Prerequisites:** PSYO 1011.03 (or PSYO 1021.03 or PSYO 1031.03) and PSYO 1012.03 (or PSYO 1022.03 or PSYO 1032.03); OR SCIE 1506.09/1507.09 (or SCIE1505X/Y.18) OR BIOL 1010.03 (or BIOL 1020.03) and BIOL 1011.03 (or BIOL 1021.03). All prerequisite courses must have a grade of B- or better.
    - CROSS-LISTED: PSYO and NESC 2160.03
- **Course Exclusion:** N/A
- **Animal Behaviour Certificate:** This course can be used towards the Animal Behaviour Certificate or ANBH

Overview:

In this course you will learn about animal behaviour from the perspective of *behavioural biology* **and** *animal psychology*. The course is integrative and synthetic in nature: Disciplines such as animal (comparative) experimental psychology, ethology, and behavioural ecology/sociobiology contribute to the perspectives presented in this course. Examples will focus on vertebrates (i.e., fish, amphibians, reptiles, birds, and mammals) although examples with invertebrates may be given on occasion. The course balances ***proximate*** (physiology, cognition, etc) and ***ultimate*** (evolution, adaptation) explanations of behaviour.

Learning Objectives:

We favour an integrative and synthetic approach to animal behaviour. At the end of this course, the student will be able to:

- Understand and explain the contribution of all the main sciences of animal behaviour: **Comparative psychology** and **behavioural biology** (ethology and sociobiology/behavioural ecology).

- Grasp the wide diversity of animal behaviour **within and between taxa**.
- Understand and explain the complexity of behaviours among vertebrates.
- **Attendance**, **memorisation** and **note-taking** are essential to do well in this course.

Course materials:

There is no mandatory textbook for this course. If you really want a text to read, I suggest the reference below. It is **not** at the bookstore. Second hand hard copies are likely available for sale online. Note that ebook versions may be cheaper: https://press.uchicago.edu/ucp/books/book/chicago/P/bo249660129.html

> Dugatkin, Lee Alan (2025). *Principles of Animal Behavior*. 5th Edition. New York: Norton.

Other material: Scientific papers on specific topics may be suggested at any time during the term.

The course is on Brightspace where the lecture notes (in PDF – or html for long scrolling and easy font size control if requested) are posted.

Note that:

- Lecture notes are typically posted once a week, before class, but updates can be uploaded after class as well.
- Lecture notes are organised by theme, i.e., the sections are more like chapters, and not organised by lecture (this is because some years the course is offered in the 60-minute slot, and other years, in the 90-minute slot).
- You should be annotating (at minimum) the lecture notes provided (outline), **and** taking your own notes to supplement the material presented. I do not use "slide decks" as if they were a teleprompter. This means that missing lecture material translates into missing crucial information for an exam.
- For copyright reasons, some material may not be showing on the uploaded slides.

Course Assessments:

Assessment	% of final grade	Date	Location, time, duration

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Midterm 1	30%	October 7th	Regular time and space, 90 minutes
Midterm 2	30%	November 4th	Regular time and space, 90 minutes
Final (**cumulative**)	40%	TBD by the Registrar's Office	TBD by the Registrar's Office, **3 hours**

Midterm and final exam:

The format of the exams (the midterms and the final) is based on **true/false** and **multiple choice** questions.

Material is fully *cumulative* for the final exam.

Note that you will be tested on:

- Material from the provided lecture notes.
- Material presented in class not fully developed in the lecture notes: Your **personal notes** will matter.
- IMPORTANT: My shared lecture notes are only an **outline**. Your **own notes** will be crucial to succeed in this course.

Course requirements:

In order to pass this course you need to:

- Obtain a final grade of 50% or more (minimum D)
- Write the midterms and the final exam. Please refer to the course policy on missed tests/exams in the section below.
- Any missed exams that are not resolved according to course policy will result in an INC final grade for the course. An INC (incomplete) that is not addressed within a month of the end of a class will result in an F for the course.
- Note: Academic Calendar regulation 16.1 "In order to complete a course satisfactorily, a student must fulfil all the requirements as set down in the course outline [Syllabus]."

Other course requirements:

Attendance will be taken intermittently, and randomly. A good attendance record (over 80%) may be used, at my discretion, to upgrade a student to the next letter grade ***if within 1% of the next letter grade***. For example, you get 79% but participated to 90% of the lectures, you may get bumped-up to an A-.

Conversion of numerical grades to final letter grades follows the Dalhousie common grade scale:

F	D	C-	C	C+	B-	B	B+	A-	A	A+
<50	50–54	55–59	60–64	65–69	70–72	73–76	77–79	80–84	85–89	90–100

Course policies on missed or late academic requirements:

Missed lectures: Although there is no direct penalty for missing lectures, it is particularly important that you realise you will be accountable for material covered during the lectures.

Missed tests/exams:

- **No need for a SDA** (student declaration of absence) in this class.
- Since SDA's are not valid for Final Exams, and finals cannot be missed (unlike midterms), if you miss the final, only students with a valid and documented excuse will have the following option (following consultation with the Assistant Dean of Student Affairs): You write an **essay question exam**.
- There are **no make-ups** for a missed midterm in this course: **The value of the missed midterm is added to the final exam.** In other words, your final will weigh more (value of the final + the value of the missed midterm).
- If you miss **both** midterms, you may need a special permission from the Assistance Dean of Student Affairs (see above), and your final, if the absence is justified and approved, will be worth 100% of your grade.
- For long-term or chronic absences please speak with either:
- An advisor at Accessibility and Accommodations (Student Accessibility Centre) if you have accommodations.
- The Assistant Dean of Student Affairs (at the Faculty of Science): scieasst@dal.ca (Patricia Laws).
- Remember that **the final exam is fully cumulative**, and therefore will be covering the material of the full term.

Cancelled midterms:

If a midterm is cancelled due to weather or other force majeure events, the new date and time for the midterm will be the next regularly scheduled class, unless an alternative date is announced on Brightspace.

Course Policies related to Academic Integrity

- Please see the Dalhousie regulations
- Make sure you understand the concept of "self-plagiarism": You are not allowed to recycle papers or other projects submitted in other courses, even partially.

Course Content:

This is a topic-based course that uses, among others, themes presented in Dugatkin (2025). Note that other topics are covered that are not included in the book.

Section and theme(s): not necessarily in that order	Chapters in Dugatkin or other source
§1 Animal kingdom and diversity: Zoological taxonomy and behavioural taxonomy.	Lecture notes
§2 Animal Behaviour: The sciences and concepts.	1
§3 Natural selection: Behaviour and evolution.	2
§4 Sexual selection: Mate choice, courtship, and mating behaviours.	7
§5 Artificial selection: Domestication	Lecture notes
§6 Parental systems: Reproductive behaviour and parental / alloparental behaviour. Cooperative breeding, and family systems.	9, 10
§7 Mating systems (a.k.a., reproductive systems); focus on monogamy.	8

Themes in the table below are not covered in this class but rather in Biology, in NESC/PSYO 3162 (Advanced Animal Behaviour) or in NESC/PSYO 2140 (Learning: Conditioning and Motivation):

Themes	Chapters in Dugatkin	Other courses
Social behaviour and social systems.	10, 15	Covered extensively in NESC/PSYO 3162

Themes	Chapters in Dugatkin	Other courses
Play in vertebrates.	16	Covered extensively in NESC/PSYO **3162**
Individual differences and "personality" (temperament) in animals.	17	Covered extensively in NESC/PSYO **3162**
Learning and cognition.	5	Covered extensively in NESC/PSYO **2140**
Surviving: Habitat selection, home ranges, territories, foraging, preys, and predators.	11, 12, 14	Covered extensively in **BIOL 3062**
Generalities on animal communication.	13	Covered extensively in NESC/PSYO **3162**

Monographs

Typically bi-weekly, we will discuss a specific species or taxon (group of species) of vertebrates, (fish, amphibians, reptiles, birds, and mammals), and discuss their behavioural profile. Below is a sample of monographs that have been presented in the past. Note that some are incorporated within sections of lecture notes (e.g., anatids, callitrichids, canids), others are stand-alone (e.g., mustelids, lagomorphs, felids). Note that this list is more than what we can cover during the term, and that species or groups not listed here may also be covered. Note that taxa extensively covered in courses in Biology or Marine Biology, e.g., most fish, some birds (especially passerines, sea birds), and marine mammals, are not covered in this class to avoid overlap and repetition for the BIOL, MARI, Animal Behaviour Certificate students.

Taxa	Monographs
Mammals	The marmosets and tamarins (**callitrichids**) ~ in the mating systems section The weasel family (**mustelids**) — martens, weasels, otters, etc. The cat family (**felids**) — bobcats, Canada lynx, cougars The dog family (**canids**) — wolves, coyotes, foxes, etc. ~ in the mating and social systems sections The raccoon family (**procyonids**) — raccoons, coatimundis, kinkajous, etc. **Lagomorphs**: Hares and rabbits **Rodents**: general overview, porcupines, beavers, muskrats, squirrels, wild indigenous mice (*Peromyscus*, *Zapus*, *Napaeozapus*), voles (*Microtus*, etc.)

Taxa	Monographs
Birds	**Strigiforms** (owls of NS) **Corvids** (crows, ravens, jays, etc., of NS) **Anatids** (ducks, geese, etc., of NS) ~ in the domestication and mating systems sections
Reptiles	**Turtles** of NS **Snakes** of NS typically not offered because of snake phobias being reported
Amphibians	**Anourans** of NS: Frogs and Toads **Urodela** of NS: Newts and Salamanders
Fish	**Syngnathids**: Seahorse, pipefish, pipehorse and seadragons **Mummichogs**: The eccentrics of the brackish waters of the Eastern seaboard **Elephant nose fish**: Electric fish with the “largest brain” of all vertebrates

Student supports and university statements, policies, and guidelines

https://dalu.sharepoint.com/sites/learn-teach/SitePages/syllabus-appendix.aspx