

# BIOLOGY 345 – Animal Behaviour (CRN 31129)

Summer 2020

Department of Biology, University of Victoria

## Course Description

Evolutionary and comparative analyses of behaviour. Topics include taxonomic diversity of nervous systems, proximate and ultimate mechanisms, nature/nurture controversies, communication and sensory modes, foraging behaviours, mate choice, sociality, and warfare. Laboratory includes observational and experimental approaches to behaviour of representative invertebrate and vertebrate taxa.

## Meetings

Lectures: MWR 4:30 – 6:20 PM, online (Zoom)

Labs: MR 6:30 – 9:20 PM, online (Zoom)

## Instructor and SLI

Dr. Rossi Marx, Petch 105, 250-721-7089.

Email: [zoology@uvic.ca](mailto:zoology@uvic.ca). Office hours (online) by appointment.

## Lab Instructors

**Lab exercises:** Jacqueline Ballantyne, [jballant@uvic.ca](mailto:jballant@uvic.ca)

**Projects:** Crows, Gulls, and Squirrels: Leigh Gaffney, [lgaffney@uvic.ca](mailto:lgaffney@uvic.ca)

Dogs and Ducks: Kieran Cox, [kcox@uvic.ca](mailto:kcox@uvic.ca)

## Prerequisites

[BIOL 184](#) or BIOL 190B; and [BIOL 186](#) or BIOL 190A; and minimum third-year standing; and either [BIOL 215](#), or declared Honours or Major in Anthropology or declared Honours or Major in Combined Biology and Psychology

## Course Materials and Readings

**Textbook (optional):** John Alcock: Animal Behavior, any recent edition.

Students are expected to browse weekly two or more current biological periodicals in McPherson Main Floor. Possible journals: Evolution, Nature, Science, New Scientist, Trends in Ecology and Evolution, Animal Behaviour, Behavioral Ecology and Sociobiology, Animal Cognition, Animal Learning and Behavior, Neurobiology of Learning and Behavior.

**Thought-provoking:** The Case for Animal Rights, author T. Regan 1983; Created from Animals, author J. Rachels 1983; Animal Minds: beyond cognition to consciousness, author D. Griffin 2001; The Cognitive Animal, eds. M. Bekoff *et al.* 2002; Mind of the Raven, author B. Heinrich 1999; Minding Animals, author M. Bekoff, 2002; Animals matter, author M. Bekoff 2007.

## Excellent DVDs on animal behaviour:

David Attenborough: The Life of Birds, The Life of Mammals, Life in the Undergrowth, Planet Earth, Life in Cold Blood, Blue Planet

## Labs

Hands-on analyses (in a virtual environment) of simple and complex behaviours across a diversity of taxonomic groups including protists, jellies, sea anemones, annelids, molluscs, echinoderms, arthropods, and fish. Includes a field project.

Labs begin Monday, May 11. You will not need to purchase a lab manual (we will post relevant materials).

**Lab attendance:** You are required to attend all of the scheduled labs in order to fulfill the requirements of this course. If you miss, for any reason, **more than two of the laboratory sessions** you will not have completed the course requirements and you will receive a grade of F in the course. Please consult the 'Laboratory Work' section of the UVic calendar.

Absences due to illness must be supported with documentation from a medical doctor or registered clinical counselor. Absences due to family occasions, other than illness or death, may be considered on an individual basis.

## Course Website

Biology 345 has a CourseSpaces website. You may find there lecture and lab notices, test results, and lecture notes. Much of the lecture material will be posted the day following the lecture at the latest.

**Please note that any materials posted on CourseSpaces are for course purposes only!**

## Evaluation

Mid-term exam	(Wednesday, June 03)	20%
Final exam	(Thursday, June 25)	30%
Lab		50%
Lab exercises and quizzes		11%
Tutorials (3@3%)		9%
Lab test (written with final exam)		5%
Laboratory Project		25%

**You will submit assignments to CourseSpaces.** We will accept late assignments, but a **20% late penalty will be applied per day for up to two days late**, after which time the assignment will no longer be accepted, unless you have been granted an extension.

You must pass both the lecture and the lab in order to pass the course.

## Midterm and Final Exams

The midterm and final exams will be open book exams with essay-style answers.

If you must miss the midterm exam for a valid reason (*e.g.* illness, accident, or family affliction), you must notify Rossi Marx ([zoology@uvic.ca](mailto:zoology@uvic.ca)) as soon as possible and provide suitable documentation for your absence.

The final exam can be deferred, *e.g.* in cases of illness, accident, or family affliction. If you expect to miss the final exam for any of these reasons, please notify the instructor as soon as possible and produce supporting documentation. You must also fill out a Request for Academic Concession (RAC) form, available online (<https://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf>).

The Biology Department does not offer supplemental final exams.

## **Grading**

Grades are submitted by instructors only as percentages. These will be converted to letter grades by Records, according to the grading scale given in the university calendar.

***Please do not ask us to raise your percent grade in order to qualify you for a higher letter grade. We turn down all such requests.***

If you do not write the final exam and lack an excuse, or if you do not pass the lab, the grade submitted for you will be an N.

## **Academic Regulations and Policies**

Please read the appropriate section of the current UVic Academic Calendar regarding your rights and obligations. ***It is your responsibility to check your records and registration status; you will not be dropped automatically from the course if you do not attend.***

## **General outline of planned lecture topics**

Behavioural laterality – left brain versus right brain

Historical approaches to the study of behaviour

Nervous system and behaviour diversity among animal phyla

Behavioural development – internal and external environments

Animal communication and sensory exploitation

Defenses against predators

Optimal foraging, zoopharmacognosy (self-medication)

Sociality, cooperation

Cephalopod behaviour

Empathy, self awareness, consciousness

Evolution of play

*UVic is committed to promoting, providing and protecting a supportive and safe learning and working environment for all its members.*