

# **BIOLOGY 345 – Animal Behaviour (CRN 31057)**

**Summer 2018**

**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, Cunningham 146

Labs: MR 6:30 – 9:20 PM, Petch 110

## **Instructor**

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

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

## **Senior Lab Instructor**

Dr. Mauricio Carrasquilla, [mcarrasq@uvic.ca](mailto:mcarrasq@uvic.ca). Office hours by appointment.

## **Lab Instructor**

Therese Frauendorf, [frauent@uvic.ca](mailto:frauent@uvic.ca). Office hours TBA.

## **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:** 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 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 14. Please purchase a lab manual from the bookstore and bring it to the first lab. You must come to your first lab to hold your place in the course.

## 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.

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

## Evaluation

Mid-term exam	(Wednesday, June 06)	25%
Final exam	(Thursday, June 28)	30%
Lab		45%
Lab exercises and pop quizzes		6%
Tutorials (3@3%)		9%
Laboratory Project		20%
Lab tests (2@5%, with lecture exams)		10%

**You will submit the lab project report to CourseSpaces.**

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

## Class Conduct

We would like to remind students that talking in class, texting, surfing, and reading a newspaper are all irksome to students sitting nearby and to the instructor. We ask that you be mindful of this and treat the people around you with respect and courtesy. Remember where you are.

Your continued presence in this course, after the first day of class, means that you have read and understood these rules, and have agreed to abide by them. You risk expulsion from class if you do not.

## Mid-Term and Final Exam

No electronic devices will be permitted during the mid-term and final exam unless this rule is specifically suspended by the instructor.

During the mid-term and final exam, the invigilators cannot answer any clarification questions. However, if you believe a test question or exam question is bad (no correct answer, more than one equally correct answer), please bring your concerns to the attention of the instructor after the test or exam.

Please bring your UVic One Card or other photo ID to both the midterm and the final exam.

If you must miss the mid-term exam for a valid reason (illness, accident, family affliction, or competition as a UVic athlete), you must notify the instructor as soon as possible and provide suitable documentation for your absence.

The final exam can be deferred in cases of illness, accident, family affliction, or commitments as a UVic athlete. 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 from Undergraduate Admissions and Records in the University Center or online (<http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf>) .

Travel plans are not a valid reason for missing the term test or the final exam.

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**

Historical approaches to the study of behaviour

Nervous system and behaviour diversity among animal phyla

Behavioural laterality – left brain versus right brain

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

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