

Biology 354/2: Behavioural Ecology

Dr. Grant E. Brown

Office: SP 457.02

Phone: 514.848.2424 ext. 4020

Email: grant.brown@concordia.ca (preferred method of getting in touch with me)

Office Hours: M/W 8:30 – 10:00 or by appointment.

Course Overview:

Behavioural ecology examines the ways in which animals interact with their environments and the survival value of behavioural patterns. All aspects of an individual's environment, including conspecifics, heterospecific competitors and predators, biotic and abiotic components of the local habitat, exert strong selection pressures on an individual's behavioural phenotype. This course will focus on the proximate (mechanisms) and ultimate (functional or adaptive value) causation leading to these behavioural phenotypes. Topics will include: intra- and interspecific competition, predator-prey dynamics, foraging, sexual selection and mating systems, habitat selection, communication and the evolution of sociality.

The course will consist of lecture and tutorial components. Lectures are designed to give students an introduction to the broad concepts and models, which comprise modern Behavioural Ecology. Tutorials will give students the opportunity to examine, through directed discussions and videos, current research topics and controversies in greater detail. It is imperative that students come prepared to both lectures and tutorials in order to actively participate in discussions. Please ensure that you have done all readings before coming to class!

ALL LECTURES WILL BE GIVEN IN PERSON (HC-157)



Textbooks:

The **optional** textbook for this class is “An Introduction to Behavioural Ecology, 4th Ed” by Davies et al. In addition, readings will be posted on the course website. Please make sure you check the web page often. I will also announce any posted readings in class. In addition to the readings I post, there is a wealth of Animal Behaviour textbooks in the library. I suggest that you review any of these, focusing on topics related to our class discussions.

Grades:

Students are expected to submit all written assignments on time. I will assess a 10% per day late penalty for any assignment submitted after the deadline, *NO EXCEPTIONS*. Failure to submit any written assignment will result in the automatic loss of a full letter grade. If you have a conflict with any assignment or exam date, please see me as early as possible. There will be *NO MAKEUP* exams or assignments. If you miss the midterm exam for valid and verified reasons, I will pro-rate the final exam accordingly.

ATTENDANCE AT TUTORIALS IS MANDATORY. NO TUTORIAL ASSIGNMENT WILL BE ACCEPTED UNLESS YOU ARE IN ATTENDANCE.

Biology 354/2: Behavioural Ecology

Lecture:

Midterm	25% 19 October 2021
Online quizzes	10% ~ every two weeks; online.
Final exam	45% TBA

Tutorial:

Ethogram	5% 5 October 2021
Tutorial assignments	15% (due each tutorial)

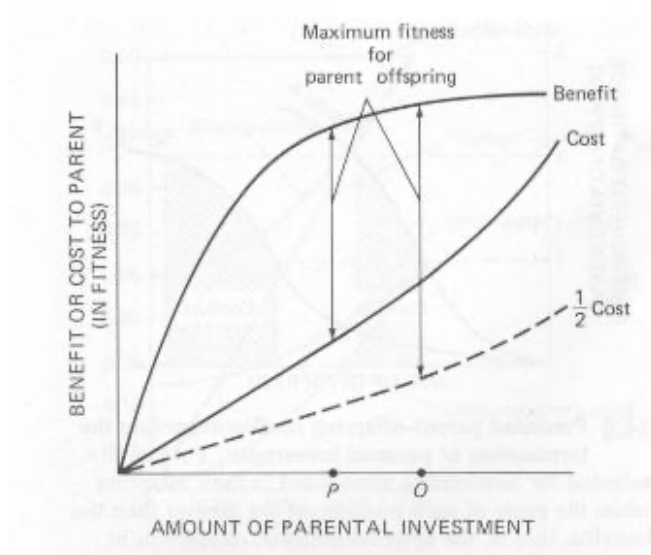
NOTE:

Tutorials will be every two weeks, starting the 2nd week of term.

Dates for tutorials are:

15-16 Sept
29-30 Sept
13-14 Oct
27-28 Oct
10-11 Nov
24-25 Nov

Lecture Topics: This is a preliminary list of topics and readings, up-to-date reading lists will be posted on the course web page. Tutorial readings will also be posted on this site. CHECK IT OFTEN!



Biology 354/2: Behavioural Ecology

PLEASE NOTE, THIS IS A TENTATIVE LIST AND SUBJECT TO REVISION AS WE PROGRESS THROUGH THE TERM.

- WK 1**
 - Approaches to the study of behaviour
 - Natural selection and adaptive value of behaviour
 - Krebs and Davies, 1, 2 & 3*
- WK 2**
 - Behavioural ontogeny I: mechanisms
 - Readings*
- WK 3**
 - Behavioural ontogeny II: learning
 - Readings*
- WK 4**
 - Behavioural plasticity
 - Krebs & Davies, 4*
 - Readings*
- WK 5**
 - Predator-prey interactions I
 - Krebs & Davies 4*
 - Readings*
- WK 6**
 - Predator-prey interactions II
 - Readings*
- WK 7**
 - Foraging and competition for resources
 - Krebs & Davies, 5 - 6*
 - Readings*
- WK 8**
 - Trophic interactions
 - Readings*
- WK 9**
 - Habitat choice
 - Readings*
- WK 10**
 - Reproductive systems and parental investment
 - Krebs & Davies 8 - 10*
- WK 11**
 - Sexual selection and mate choice
 - Krebs & Davies, 7 - 10*
 - Readings*
- WK 12**
 - Social systems and evolution of sociality
 - Krebs & Davies, 11 - 13*
- WK 13**
 - Communication and signalling
 - Krebs & Davies, 14*
 - Readings*

Biology 354/2: Behavioural Ecology

The most common offense under the Academic Code of Conduct is plagiarism which the Code defines as "**the presentation of the work of another person as one's own or without proper acknowledgement.**"

This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. Finally, if you translate the work of another person into French or English and do not cite the source, this is also plagiarism.

In Simple Words:

DO NOT COPY, PARAPHRASE OR TRANSLATE ANYTHING FROM ANYWHERE WITHOUT SAYING FROM WHERE YOU OBTAINED IT!

(Source: The Academic Integrity Website:

<http://provost.concordia.ca/academicintegrity/plagiarism/>)

- **Concordia Counselling and Development** offers career services, psychological services, student learning services, etc. <http://cdev.concordia.ca/>
- **The Concordia Library Citation and Style Guides:**
<http://library.concordia.ca/help/howto/citations.html>
- **Advocacy and Support Services**
<http://supportservices.concordia.ca/>
- **Student Transition Centre**
<http://stc.concordia.ca/>
- **New Student Program**
<http://newstudent.concordia.ca/>
- **Access Centre for Students with Disabilities**
<http://supportservices.concordia.ca/disabilities/>
- **Student Success Centre**
<http://studentsuccess.concordia.ca/>
- **The Academic Integrity Website**
<http://provost.concordia.ca/academicintegrity/>
- **Financial Aid & Awards**
<http://web2.concordia.ca/financialaid/>
- **Health Services**
<http://www-health.concordia.ca/>