

# BIOC54: ANIMAL BEHAVIOUR

Winter Session 2015

Department of Biological Sciences, University of Toronto Scarborough

## COURSE SYLLABUS

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INSTRUCTOR: Emily MacLeod PhD

Office Hours: Wednesday 1-2, AC254

T.A.: Sheena Fry

Office Hours: Thursday 1-2 pm, SW551

LECTURES: Wednesdays 2:00 - 4:00pm, HW 214

TUTORIALS: TUT0001: Wednesday 4:00 - 5:00pm, BV 260

TUT0003: Thursday 2:00 - 3:00pm, SW143

\*NOTE: You must attend the tutorial in which you are enrolled. Attendance is monitored and contributes to your course grade.

COMMUNICATION: Email: emily.macleod@mail.utoronto.ca

Course Management: "Blackboard" (*announcements, notes, assignments, etc.*)

READINGS: Textbook: Alcock "Animal Behaviour" 10<sup>th</sup> Ed. (*Hard copy available through the Bookstore, or through sinauer (<http://www.sinauer.com/animal-behavior-an-evolutionary-approach-642.html>) e-copy available through <http://www.coursesmart.com/9780878932252>)*

PRE-REQ.'S: BIOB50H & BIOB51H

EXCLUSION: EEB322H, (ZOO322H), (BGYC54H)

*NOTE: If, when BIOC54H begins, you have not already passed the pre-required courses (or if you have passed an excluded course), you WILL be removed from BIOC54H unless special arrangements have been made with the instructor.*

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### COURSE OVERVIEW:

This course is concerned with the relationship between the behaviour of animals and their survival and reproduction *in light of evolutionary theory*. Approaches to the study of animal behaviour, as demonstrated by examples from the scientific research community, are also integrated.

You will learn to (*Learning Goals*):

- (i) identify questions of ultimate or evolutionary importance
- (ii) apply Darwinian theory when forming ultimate hypotheses & predicting behavioural strategies
- (iii) understand the role of "The Scientific Method" (hypothesis testing) in theory development and the ever-changing nature of scientific knowledge

- (iv) appreciate the tremendous variety of behaviours that are exhibited by numerous species in a wide range of contexts to address a great multitude of needs

## COURSE STRUCTURE:

This course centers on the various topics, concepts, theories and approaches that are focused on in *lecture*, *textbook* and *tutorial* content. Lecture and textbook content do not directly overlap, but are complementary. Material from ALL sources is testable.

Class time will be split between lectures (2 hrs/wk) and tutorials (1 hr/wk, every other week). Lectures will consist of content presented by the instructor supported with PowerPoint slides & video. Tutorials will involve T.A.-led exercises, which help solidify concepts using an interactive learning approach.

## How To Do WELL IN THIS COURSE...

### 1. COMMUNICATION

(A) ***ANNOUNCEMENTS:*** The main source of information for this course, including emergency postings and announcements, is the course Blackboard page. Students are responsible for monitoring the course Blackboard page regularly for updates. In addition, lecture slides, handouts, assignments, links and forms (including the course syllabus and schedule) will be posted on Blackboard.

Email announcements are automatically sent through Blackboard to students' ".utoronto.ca" account and thus students are responsible for either regularly checking their ".utoronto.ca" account or having it forwarded to the email account they typically use.

(b) ***T.A.s & INSTRUCTOR:*** Questions about course material should be brought up with the T.A.s and the instructor during office hours. If queries are brief, then AND ONLY THEN is an email appropriate. Office hours have been deliberately set aside so that we can focus on your needs. Though email may be used at times when you have a specific question that requires a short answer, email will be responded to as time permits. If you are absolutely unable to attend office hours, please schedule an appointment.

(c) ***PEERS:*** One of the most useful resources you have available to you is your fellow classmate. It is highly recommended that you exchange contact information with at least one other student in the course, preferably someone in your tutorial section. Notes from missed classes will NOT be lent out by T.A.s or the instructor. Answers to frequently asked questions will be posted on the course Blackboard page.

Please note that all students have the right to learn in an environment that is safe and free from hostility or harassment of any kind. If, at any time, a student feels unsafe or threatened in any way, please contact the course instructor, a T.A., the Special Advisor on Equity Issues at the University of Toronto Scarborough (416-287-7296) and/or the University Police (416-287-7398).

## 2. ATTENDANCE

(a) *LECTURES*: Attendance is *highly recommended*. Keep in mind that course content centers on topics addressed in lecture and that the material that your instructor has chosen to focus on in lecture is what they feel is important for you to learn (*and test...*).

(b) *TUTORIALS*: Unlike many other courses, tutorials are NOT OPTIONAL for this course and attendance will be monitored for participation marks. You MUST attend the tutorial to which you are assigned. PLEASE BRING PRINTOUTS OF TUTORIAL DOCUMENTS TO TUTORIAL CLASS.

## 3. NOTES & READINGS

(a) *LECTURE NOTES*: Every effort possible will be made to post a skeletal version of lecture slides, in PDF format, *before* class on the course page. Please remember that pre-posting is a *courtesy* and NOT the *responsibility* of the instructor. Final versions of lecture slides (in PDF format) will be posted following each lecture. Lecture slides are provided in an effort to encourage students to *listen* with understanding during class time instead of writing down all displayed text. As you will experience, lecture slides tend to include headings, figures and diagrams with a modest amount of explanatory text. It will be the challenge of each student to expand on the points referred to on slides, using their own understanding of what is being said during lecture. *Please note that because they contain only some explanatory text, it is almost impossible to understand lecture material by simply downloading posted lecture slides.*

(b) *READINGS*: Required readings are intended to complement lecture content by providing detailed explanation of ideas as well as specific examples. Depending on their learning style, students can decide whether they would most benefit from reading the corresponding textbook material before or after a lecture. However, it is highly recommended that students keep up with assigned readings to get the most out of both lecture and textbook material.

Material from all sources is testable. However, students are advised to use lecture content to guide their focus when reading.

## 4. CAMPUS RESOURCES

As UTSC students, you are fortunate to have access to many resources offering additional academic assistance. Academic Advising and Career Counseling (AACC: [www.utsc.utoronto.ca/~counselling/](http://www.utsc.utoronto.ca/~counselling/)) provides both seminars and individual consultations on effective note taking, reading and study skills. The Writing Centre ([www.utsc.utoronto.ca/~ctlweb/TWC/index.htm](http://www.utsc.utoronto.ca/~ctlweb/TWC/index.htm)) offers specific guidance on scientific writing. The Biology Student Handbook ([www.utsc.utoronto.ca/~biosci/BiologyStudentHandbook.html](http://www.utsc.utoronto.ca/~biosci/BiologyStudentHandbook.html)) and the Biology Student Association (BioSA: <http://www.utsc.utoronto.ca/~biosa/>) may also provide you with support.

Students with diverse learning styles and needs are welcome in this course. If you have a disability/health consideration that may require accommodations, please feel free to

approach the AccessAbility Services Office as soon as possible. The UTSC AccessAbility Services staff (located in Room S-302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. You can contact AccessAbility Services at (416) 287-7560 or ability@utsc.utoronto.ca.

## **MISSED DEADLINES AND ABSENCES:**

As mentioned above, students are expected to attend all tutorials and exams. If a student is unable to attend a tutorial session, they should contact their tutorial leader as soon as possible, and even before their absence, if known. Documentation may be required. Students are responsible for obtaining missed material and are reminded that lecture/tutorial notes will not be given out by either teaching assistants or the course instructor. If a student is unable to submit an assignment on time or misses a test/exam for some legitimate reason, they must provide valid documentation to the course instructor as soon as they return (e.g. for medical reasons, the attending physician must complete the standard UTSC medical certificate). Unless a legitimate reason is given, a late penalty of 5% per day will be deducted from late assignments.

## **ACADEMIC INTEGRITY:**

As a University of Toronto student, you are expected to demonstrate honest and ethical behaviour with respect to all academic matters. For more information, please see Student Code of Conduct,

[www.utsc.utoronto.ca/courses/calendar/Code\\_of\\_Student\\_Conduct.html](http://www.utsc.utoronto.ca/courses/calendar/Code_of_Student_Conduct.html)

This is important when interacting with not only your course instructor and teaching assistants, but also your fellow classmates. Any conduct deemed dishonest, unethical or harmful to others in any way may be considered grounds for immediate removal from the course. For details on the University's policy on plagiarism, see

[www.utsc.utoronto.ca/~tlsweb/instruction/plagiarism.htm](http://www.utsc.utoronto.ca/~tlsweb/instruction/plagiarism.htm).

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters ([www.governingcouncil.utoronto.ca/policies/behaveac.htm](http://www.governingcouncil.utoronto.ca/policies/behaveac.htm)) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences include, but are not limited to:

**IN PAPERS AND ASSIGNMENTS:** Using someone else's ideas or words without appropriate acknowledgement. Submitting your own work in more than one course. Making up sources or facts. Obtaining or providing unauthorized assistance on any assignment.

**ON TESTS AND EXAMS:** Using or possessing unauthorized aids. Looking at someone else's answers during an exam or test. Misrepresenting your identity.

**IN ACADEMIC WORK:** Falsifying institutional documents or grades. Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/resourcesforstudents.html>).

## **EVALUATION:**

Midterm	30%	(in class, Feb. 25 <sup>th</sup> )
Tutorial Quizzes & Participation	10%	(ongoing)
Mini Tutorial Assignments (2* 2.5 marks each)	5%	(Tutorial 1 and 5)
Final Tutorial Assignment	10%	(in tutorial April 2 <sup>nd</sup> , 2015)
Final Exam	45%	(TBA; on <u>entire</u> course)

## **1. TUTORIAL CONTRIBUTION & ASSIGNMENTS**

During tutorial sessions, you will run through exercises designed to help demonstrate concepts and approaches from the field of Animal Behaviour. Activity outlines will be posted prior to tutorial sessions and students are asked to review the information before attending. A brief quiz on tutorial pre-reading will be administered at the beginning of each tutorial. Both tutorial attendance and contribution will factor into students' participation marks. Tutorial material is testable.

## **2. MIDTERM & FINAL EXAM**

The midterm and final exam will assess understanding, and some recall, of material from lecture, textbook and tutorial material. The midterm will include both short answer and multiple-choice questions while the final exam will consist mainly of multiple-choice with the possibility of some short-answer questions. The final exam will cover the entire term (cumulative). You will be tested primarily on your understanding of concepts. Synthesis of ideas from multiple themes and sources, as well as some straight recall of important terms, theories and facts, will also be assessed. Sample questions will be provided before tests.

## TENTATIVE COURSE SCHEDULE

LECTURE				TUTORIAL		
Wk	CLASS DATE	TOPIC	READINGS	TUT. DATE	GROUP	TUTORIAL TOPIC
1.	Jan. 7 <sup>th</sup>	Course Introduction: Syllabus, structure, instructor, questions	Course Syllabus Ch.1: p. 4-11 Ch.10:p.294-298	Jan. 7/8	A & B	<i>Students assigned to either Group A or B</i>
2.	Jan. 14 <sup>th</sup>	An EVOLUTIONARY Approach: Asking Questions, Optimality and Constraints	Ch.5:p.103-132	Jan. 14/15	A	TUTORIAL 1: Measuring Behaviour
3.	Jan. 21 <sup>st</sup>	Genes, Behaviour, Selection	Ch. 11: p.324-329, 334-341	Jan. 21/22	B	
4.	Jan. 28 <sup>th</sup>	Sexual Selection I: Males vs. Females, Intra-sex Competition	Ch.7: p.171-196	Jan. 28/29	A	TUTORIAL 2: Runaway Selection
5.	Feb. 4 <sup>th</sup>	Sexual Selection II: Inter-sex Mate Choice, Mating Systems	Ch.7: p.196-206 Ch.11: p.218-254	Feb. 4/5	B	
6.	Feb. 11 <sup>th</sup>	Sexual Conflict	Ch.10: p.208-213	Feb.11/12	A	TUTORIAL 3: Evolution
7.	Feb. 18 <sup>th</sup>	<i>-- Reading Week (No Class) --</i>				
8.	Feb. 25 <sup>th</sup>	----- MIDTERM -----			Feb. 25/26	B
9.	Mar. 4 <sup>th</sup>	Parental Care Kinship	Ch.12: p.258-281 Ch.3: p.53-64	Mar. 4/5	A	TUTORIAL 4: Honest Signaling
10.	Mar. 11 <sup>th</sup>	Sociality	Ch.2: p.18-28	Mar. 11/12	B	
11.	Mar. 18 <sup>th</sup>	Defense Feeding	Ch.5: p.111-135	Mar. 18/19	A	TUTORIAL 5: Video: "Signals for Survival"
12.	Mar. 25 <sup>th</sup>	Communication Learning	Ch.4: p.70-97	Mar. 25/26	B	
13.	Apr. 1 <sup>st</sup>	Evolutionary Psychology	Chpt.14: p.424-447	Apr. 2	A & B	<i>Hand in final tutorial assignment</i>

