

Course ID:	Course Title:	Fall 2021
ECOL 383	Animal Behaviour	Prerequisite: BIO 213
		Credits: 3

Class Information		Instructor Information		Important Dates	
Delivery:	In class	Instructor:	Lizelle J. Odendaal, PhD, MSc, BSc (Hons), BSc	First Day of Classes:	September 8, 2021
Days:	Wed. / Fri.	Email:	lizelle.odendaal@ambrose.edu	Last Day to Add/Drop:	September 19, 2021
Time:	1:30pm – 2:45pm	Office:	L2091	Last Day to Withdraw:	November 22, 2021
Room:	A2212	Office Hours:	Wednesdays and Fridays, 12:00pm – 1:00 pm, or by appointment	Last Day to Apply for Extension:	November 23, 2021
Final Exam	Date: Friday, December 17, 2021, Room: A2212, Time: 1:00pm-4:00pm			Last Day of Classes:	December 13, 2021

Course Description

This course explores the biological basis of animal behaviour using key principles from the fields of ethology and behavioural ecology. Placed within an evolutionary framework, the unifying principles of natural and sexual selection are used to investigate the driving forces that have shaped the remarkably diverse and often strange suite of behaviours in animals that enable them to survive harsh climates, find mates, care for young, migrate across diverse landscapes, and learn to survive in their environment.

Published journal articles will be used to illustrate the evolutionary processes shaping the complex relationships between animals and their environment that are mediated by behaviour.

Expected Learning Outcomes

It is the aim of the course that students acquire the following skills:

- 1) Develop the ability to critically evaluate hypotheses regarding the adaptive evolution of specific behaviour.
- 2) Understand the research methodologies associated with the successful study of animal behaviour and develop the ability to design an experiment to test a specific hypothesis regarding animal behaviour.

- 3) Demonstrate scientific literacy in the field of animal behaviour and be capable of communicating their knowledge to peers through a term project culminating in a scientific presentation of a selected topic in animal behaviour.
- 4) Be able to distinguish the proximate and ultimate causes of behaviour in natural populations.
- 5) Gain a full understanding of the mechanisms that enable animals to perceive, and respond to, stimuli in their environment.
- 6) Gain an understanding of the different reproductive strategies, and the associated reproductive behaviour, in the animal kingdom and how individual organisms use behaviour to maximize their reproductive success.
- 7) Understand the role and complexities of social behaviour in the lives of animals and how such behaviour is integral to cooperation, conflict, social structure, and survival.
- 8) Be capable of integrating an ecological and evolutionary approach to the study of animal behaviour and being capable of seeing larger patterns as common threads interconnecting the diverse topics covered in the course.

Textbooks

A textbook is not required for this course. Students will read and critically evaluate selected journal articles used to illustrate key concepts covered in this course and rely on lecture materials.

Course Schedule

The following schedule provides a general guideline and timetable for topics, tests, and assignment due dates. It may change depending on the pandemic or progress through the semester.

Week	Date	Topic
1	8 Sept.	Introduction to the course, course outline and evaluation
	10 Sept.	Natural selection and the evolution of behaviour
2	15 Sept.	The genetics and development of behaviour
	17 Sept.	The neural basis of behaviour Responding to stimuli: Case study- moth hearing of bat echolocation calls
3	22 Sept	Forms of learning Case study: The evolution of song learning in birds
	24 Sept.	A comparative approach: vocal learning in mammals
4	29 Sept.	How to write a research/grant proposal in animal behaviour How to prepare and deliver a short scientific presentation
	1 Oct.	Class test 1 (material from 8-24 September)
5	6 Oct.	No class
	8 Oct.	Feedback and discussion of Class test 1 Animal communication and the evolution of animal signals
6	13 Oct.	Honest signals, deceitful signals, and eavesdropping
	15 Oct.	Draft term project (grant proposal) due Hormonal control of behaviour

7	20 Oct.	Circadian mechanisms and seasonal patterns of behaviour
	22 Oct.	Territoriality and habitat use
8	27 Oct.	Migration and animal navigation mechanisms
	29 Oct.	Predator avoidance and Optimal foraging
9	3 Nov.	Class test 2 (material from 8-29 October)
	5 Nov.	Sexual selection and mate choice
10	10 Nov.	No class
	12 Nov.	No class
11	17 Nov.	Final term project (grant proposal) due Feedback: Class test 2 Animal mating systems and alternative reproductive strategies
	19 Nov.	The evolution of social behaviour and sociality Altruism and kin selection
12	24 Nov.	Evolution of Eusociality
	26 Nov.	Cooperation and conflict
13	1 Dec.	Introduction to human behaviour
	3 Dec.	OPEN
14	8 Dec.	Oral presentations
	10 Dec.	Oral presentations

Covid-19:

Currently lectures are designated as “in class”. However, please be aware that this could change as the Covid pandemic evolves. Therefore, the syllabus, schedule and grading summary could also change. Any changes will be communicated to you in advance. Please check both your Ambrose email and the course Moodle announcement page regularly for any changes to the syllabus or schedule or whether classes will be moved to an online format.

Requirements:

There will be NO labs for this course. Student learning will be evaluated using class tests, in class assignments, a final exam, and a term project. Details of the project will be communicated in class. The overall structure of this course will essentially be a collaboration between the instructor and students. Thus, students are expected to take appropriate responsibility for achieving their learning outcomes under the guidance of the instructor.

Theory (lecture) exams, class tests and assignments:

1. Term tests will use a variety of formats including multiple choice, true/false, drawing of diagrams and graphs/plots, short answer, and short essay questions.
2. The final exam will have a structure similar to the term tests, with a combination of question formats. Approximately 60% of the final exam will cover new material (since class test 2). Approximately 40% of the exam will consist of comprehensive material. This ratio may change based on class progress but will be made clear prior to the final exam.
3. In class assignments are varied, and can include short quizzes, short essay assignments or participation in class discussions. All in class assignments will be announced ahead of time.

All assignments, unless otherwise stated, must be submitted electronically in Word format. Please ensure that your name is included on all documents, whether hardcopy or electronic. A grade of zero will be applied for any document that has no name.

Assignments are due at the designated time. On the rare occasion where certain circumstances prevent students from submitting assignments on time, a late penalty will be applied to the grade. Students must contact me in writing prior to the deadline. Late

submissions without prior contact will not be accepted and a grade of zero will be assigned. This late policy does not apply to term tests or in-class assignments, all of which must be completed on time.

Condition	Deduction
Assignment is turned in 1 calendar day late	10%
Assignment is turned in 2 calendar days late	20%
Assignment is turned in 3 calendar days late	30%
Assignment is turned in 4 calendar days late	40%
Assignment is turned in 5 calendar days late	100%

Attendance:

Regular attendance will be essential for success on all tests and assignments. No points will be deducted from your grade for non-attendance. However, in class assignments cannot be made up and, if missed, will receive a grade of zero. This term, lectures will not be provided over Zoom, unless there is a change in the University policy because of changing pandemic conditions. If you miss a class, it is your responsibility to review the lecture slides provided and discuss the content with your classmates.

Plagiarism policy

Please carefully read Ambrose’s statement defining plagiarism and outlining its consequences at the end of this document. Plagiarism will not be tolerated, and the following consequences may apply if plagiarism is suspected:

For a first offence, a grade of zero will be applied and a report on plagiarism will be filed with the Registrar. For a second offence, a F grade for the course will be applied. A recommendation for expulsion to the Registrar may also be applied.

Some examples of plagiarism include (but is not limited to):

1. Submitting someone else’s work as your own.
2. Copying directly from a source without citing the source and/or using quotation marks.
3. Copying large amounts of text, word for word (or only changing a few words) and submitting it as your own work.
4. Properly citing sources in text, but not including the full citation in your bibliography.

There are many more examples of plagiarism and it is your responsibility to ensure the academic integrity of your work. If you are unsure about what constitutes plagiarism, please feel free to discuss your concerns with me first.

Grade Summary:

Activity	Percent of grade
Class test 1	15%
Class test 2	15%
Final exam	25%
Term project (grant proposal) draft	5%
Final term project	20%
Scientific presentation	15%
In class assignments (4-5)	5%

The available letters for course grades are as follows:

Grade	Interpretation	Percentage
A+	Excellent	97-100%
A		93-96%
A-		89-93%
B+	Good	83-89%
B		77-82%
B-		70-76%
C+	Satisfactory	67-69%
C		63-66%
C-		60-62%
D+	Poor	54-59%
D		50-53%
F		Failure

Because of the nature of the Alpha 4.00 system, there can be no uniform University-wide conversion scale. The relationship between raw scores (e.g., percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously. Please note that final grades will be available on student registration system. Printed grade sheets are not mailed out.

Ambrose University Important Information:

Communication

All students have received an Ambrose e-mail account upon registration. It is the student's responsibility to check this account regularly as the Ambrose email system will be the professor's instrument for notifying students of important matters (cancelled class sessions, extensions, requested appointments, etc.) between class sessions.

Exam Scheduling

Students who find a conflict in their exam schedule must submit a Revised Examination Request form to the Registrar's Office by the deadline date; please consult the Academic Calendar. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; 2) the student has three final exams within three consecutive exam time blocks; 3) the scheduled final exam slot conflicts with an exam at another institution; 4) extenuating circumstances. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

Standards of Behaviour in the Classroom Setting

Learning is an active and interactive process, a joint venture between student and instructor and between student and student. Some topics covered within a class may lead to strong reactions and opinions. It is important that Students understand that they are entitled to hold contradictory beliefs and that they should be encouraged to engage with these topics in a critical manner. Committing to this type of "active learning" significantly increases the learning experience for both teacher and student, and reflects the

Christian imperative to pursue truth, which lies at the heart of the Ambrose educational experience. However, active discussion of controversial topics will be undertaken with respect and empathy, which are the foundations of civil discourse in the Classroom Setting. Primary responsibility for managing the classroom rests with the instructor. The instructor may direct a student to leave the class if the student engages in any behaviour that disrupts the classroom setting. If necessary, Ambrose security will be contacted to escort the student from class. Please refer to your professor regarding their electronic etiquette expectations.

Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to acknowledge to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are

reported to the Academic Dean and become part of the student's permanent record.

Academic Policies

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. The academic calendar can be found at <https://ambrose.edu/content/academic-calendar-2>

Privacy

Personal information (information about an individual that may be used to identify that individual) may be required as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Coursework Extensions

Should a request for a time extension on coursework exceed the end of the term, a *Coursework Extension Application* must be completed and submitted to the Office of the Registrar. The extension (if granted) will be recorded on the student record. Extensions are granted at the discretion of the instructor and are normally granted for 30 days beyond the last day of the term.

Normally, Course Extension Applications will be considered only when all of the following conditions are met:

- the quality of prior course work has been satisfactory;
- circumstances beyond your control, such as an extended illness or death of a family member, make it impossible for you to complete the course work on time; and
- you submit *Coursework Extension Application* to the Office of the Registrar on or before the deadline specified in the Academic Schedule.

If granted, time extensions do not excuse you from a final examination where one has been scheduled for the course.

A temporary grade of TX will be assigned until a final grade is submitted in accordance with the new deadline. A final grade of F will apply to:

- all course work submitted after the end of the semester unless a coursework extension has been granted; and all course work submitted after the revised due date provided by an approved extension to coursework.

Academic Success and Supports

Accessibility Services

Academic accommodation is provided to Ambrose students with disabilities in accordance with the Alberta Human Rights Act and the Canadian Charter of Rights and Freedoms. Provision of academic accommodation does not lower the academic standards of the university nor remove the need for evaluation and the need to meet essential learning outcomes. Reasonable accommodations are tailored to the individual student, are flexible, and are determined by considering the barriers within the unique environment of a postsecondary institution. It can take time to organize academic accommodations and funding for disability-related services.

Students with a disability who wish to have an academic accommodation are encouraged to contact Accessibility Services as early as possible to ensure appropriate planning for any needs that may include accommodations. Staff can then meet with students to determine areas to facilitate success, and if accommodations are required, ensure those accommodations are put in place by working with faculty.

Ambrose Writing Services

Ambrose Writing services provides academic support in the four foundational literacy skills—listening, speaking, reading, and writing. It also assists students with critical thinking and the research process. Throughout the academic year, students can meet with a writing tutor for personalized support, or they can attend a variety of workshops offered by Academic Success. These services are free to students enrolled at Ambrose University. Academic Success serves all students in all disciplines and at all levels, from history to biology and from theatre to theology. To learn more, please visit <https://ambrose.edu/writingcentre>

Ambrose Tutoring Services

Ambrose Tutoring Services provides support in specific disciplinary knowledge, especially in high-demand areas such as chemistry, philosophy, math and statistics, and religious studies. These tutors also coach students in general study skills, including listening and note-taking. During the academic year, Ambrose Tutoring Services offers drop-in tutoring for courses with high demand; for other courses, students can book a one-to-one appointment with a tutor in their discipline. These services are free to students enrolled at Ambrose University. To learn more, please visit <https://ambrose.edu/tutoring>.

Mental Health Support

All of us need a support system. We encourage students to build mental health supports and to reach out when help is needed.

On Campus:

- Counselling Services: ambrose.edu/counselling
- Peer Supportive Listening: One-to-one support in Student Life office. Hours posted at ambrose.edu/wellness.
- For immediate crisis support, there are staff on campus who are trained in Suicide Intervention and Mental Health First Aid. See ambrose.edu/crisissupport for a list of staff members.

Off Campus:

- Distress Centre - 403-266-4357
- Sheldon Chumir Health Care Centre - 403-955-6200
- Emergency - 911

Sexual Violence Support

All staff, faculty, and Residence student leaders have received *Sexual Violence Response to Disclosure* training. We will support you and help you find the resources you need. There is a website with on and off campus supports – ambrose.edu/sexual-violence-response-and-awareness.

Off Campus:

- Clinic: Sheldon Chumir Health Centre - 403-955-6200

- Calgary Communities Against Sexual Abuse - 403-237-5888

Note: Students are strongly advised to retain this syllabus for their records.