

Course ID:	Course Title:	Fall 2023
ECOL 383	Animal Behaviour	Prerequisite: BIO 213
		Credits: 3

Class Information		Instructor Information		Important Dates	
Delivery:	In Class	Instructor:	Lizelle J. Odendaal, Ph.D., MSc., BSc. (Hons), BSc.	First Day of Class:	Sept. 6
Days:	M/W	Email:	Lizelle.odendaal@ambrose.edu	Last Day to Add/Drop:	Sept. 17
Time:	11:15–12:30	Office hours:	Wednesdays 12:45- 2:00, or by appointment	Last Day to Withdraw:	Nov. 20
Room:	A2210			Last Day to Apply for Coursework Extension:	Nov. 23
Final Exam:	Saturday, December 16, Room A2210, 9am -12pm			Last Day of Class:	Dec. 11

Important Dates and Information

For a list of all important dates and information regarding participating in classes at Ambrose University, please refer to the Academic Calendar at <https://ambrose.edu/academic-calendar> .

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.



My commitment to you, and my expectations of you:

I am committed to providing a safe, and inclusive classroom environment to ensure that you not only achieve your learning outcomes, but that you also walk away with a deeper appreciation and understanding of the integrative field of animal behaviour. I sincerely hope my enthusiasm for the subject is contagious. In turn, I ask that you too remain respectful of me and your classmates, as well as to communicate any special needs you may have, so that I can better assist you in achieving your goals.

Expected Learning Outcomes:

You can expect several positive learning outcomes from this course. As a result of lectures, in class discussions, quizzes and games, you should be able to:

- Develop the ability to critically evaluate several hypotheses regarding the adaptive evolution of different animal behaviours.
- Distinguish between the proximate and ultimate causes of animal behaviour in natural populations.
- Understand the evolution of animal communication systems that enable animals to perceive, and respond to, stimuli in their environment.
- Gain an understanding of the mechanisms and limits to animal learning and cognition.
- Understand the costs and benefits of different reproductive strategies, and the associated reproductive behaviour between sexes.
- Understand the complexities of social behaviour in different organisms and how they shape patterns of cooperation, conflict, and social structure in natural populations.

As a result of reading primary literature, and class/group discussions you should be able to:

- Develop your ability to critically evaluate scientific research papers by assessing the methods and approach used to test hypotheses proposed to explain a particular animal's behaviour.
- Develop a deeper understanding of the integrative nature of animal behaviour research, and appreciation of the scientific method.

By completing the term project which includes a written research proposal and an oral presentation, you will:

- Develop your writing and communication skills.
- Become proficient in communicating behavioural concepts in a clear and concise manner to different audiences, and in different mediums.

Textbooks:

A textbook is NOT required for this course. Lecture slides and required readings will be available to download from Moodle. I will base my lectures on various sources, including different textbooks and journal articles. Therefore, it will be best to **annotate the lecture slides with notes during class**. Often, I provide the most important notes associated with particular slides together with the PowerPoint presentation (this will be indicated on the slides).

Course Schedule:

The following schedule provides a general guideline and timetable for topics, tests, and assignment due dates. It may change depending on progress through the semester. Broadly, we will cover the following topics:

Week	Date	Topic
1	Sept 6	Introduction to the course, course outline and evaluation
2	Sept 11	Natural selection and the evolution of behaviour
	Sept 13	The genetics and development of behaviour
3	Sept 18	The neural basis of behaviour Part 1: Innate behaviour and responding to stimuli.
	Sept 20	The neural basis of behaviour Part 2: - Class discussion- "Innate recognition of water bodies in echolocating bats" - Stimulus filtering
4	Sept 25	- Forms of learning - How to write a research proposal and prepare a short scientific presentation
	Sept 27	The evolution of bird song
5	Oct 2	Midterm 1
	Oct 4	Deeper life- no class
6	Oct 9	Thanksgiving- no class
	Oct 11	Animal communication and the evolution of honest signals, deceitful signals, and eavesdropping. * Draft term project (grant proposal) due
7	Oct 16	Territoriality and habitat use
	Oct 18	Migration, dispersal, and animal navigation mechanisms
8	Oct 23	- Optimal foraging and avoiding predators - Introduction to vigilance behaviour tutorial
	Oct 25	Vigilance behaviour tutorial
9	Oct 30	Midterm 2
	Nov 1	Sexual selection and mate choice
10	Nov 6	Reading week- no class
	Nov 8	
11	Nov 13	Animal mating systems and alternative reproductive strategies
	Nov 15	The evolution of social behaviour and sociality Altruism and kin selection * Final research proposal due
12	Nov 20	Evolution of Eusociality
	Nov 22	Cooperation and conflict
13	Nov 27	An introduction to human behaviour
	Nov 29	OPEN
14	Dec 4	OPEN
	Dec 6	Oral presentations
15	Dec 11	Oral presentations

Requirements:

My aim is to create a collaborative and inclusive environment in the classroom. This means that I expect and encourage you to be actively engaged in class discussions and the course material. There will be NO labs for this course. However, the Vigilance tutorial will provide you with a taste of the kind of exercises typical of Animal Behaviour labs. It will also provide an opportunity to earn bonus marks for your final exam. Your learning will be evaluated using midterms, in class assignments, a final exam, and a term project.

Theory (lecture) exams, midterms, and assignments:

1. Midterms 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 midterms, with a combination of question formats. Approximately 70 % of the final exam will cover new material (since midterm 2). Approximately 30 % 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, or as a Google doc**. All assignments are due on the designated date. Of course, I understand life happens and sometimes things out of our control may impact our work. In the event of a missed evaluation/assignment due to illness or other (reasonable) circumstance, please contact me as soon as possible, **but no later than 24 hours after the scheduled evaluation/assignment submission**.

Term project details:

The term project consists of two components - a written research proposal and an oral presentation.

The aim of the written assignment is to model a crucial component of scientific research; and that is to develop a detailed and appropriate experimental design in the form of a research proposal on any animal behaviour topic that interests you. This integral first step of any research project allows scientists to carefully articulate their research question, review the scientific literature around the topic of interest to identify hypotheses that could answer their question, as well as formulate predictions unique to their study system. The proposal also describes the study design that will allow you to appropriately test your hypotheses. Scientists must motivate why their proposed research is important, and how it will provide valuable insight and advance knowledge in the field. Research proposals are required to apply to several agencies for funding, and thus writing one is an integral skill for any scientist. A detailed rubric will be provided to guide you, and you will have the opportunity to submit a draft of the proposal for review and feedback.

The oral presentation component will be treated as if you are presenting your proposed research to members of a funding agency. You must convince them to award you research funds by showing that your proposed research is innovative, relevant, unique and will significantly contribute to the advancement of the field which your study is based on. A detailed rubric will also be provided.

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.

Grade Summary:

You will be assessed as follows:

Activity	Percent of grade
Participation in class discussions/activities	5%
Midterm 1	15%
Midterm 2	15%
Final theory exam	25%
Research proposal draft	5%
Research proposal final	20%
Presentation	15%

The available letters for course grades are as follows:

Grade	Interpretation	Percentage
A+	Excellent	90-100%
A		85-89%
A-		80-84%
B+	Good	77-79%
B		73-76%
B-		70-72%
C+	Satisfactory	67-69%
C		63-66%
C-		60-62%
D+	Poor	55-59%
D	Minimal Pass	50-54%
F	Failure	< 50%

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:

Ambrose University Important Policies & Procedures:

Registration

Registration is the process of selecting and enrolling in classes for upcoming semesters. Only students who are registered will be permitted to attend class and receive a grade for the course. You are responsible for ensuring that the courses you take are appropriate for your program, that they do not have any scheduling conflicts, that they have the necessary prerequisites and that they meet all degree requirements.

Withdrawal From A Course

Prior to the Add/Drop deadline: through the student registration system whereby course(s) will be removed with no academic or financial penalty. After the Add/Drop deadline and until the Withdrawal deadline: through submission of the 'Withdrawal from Course' form whereby course(s) will remain on the permanent academic record/transcript with the symbol 'W'. (See ambrose.edu/registrar/request-forms.) Students who withdraw from more than 30 credits attempted at Ambrose University will be required to withdraw from their program. Students considering withdrawing from courses are encouraged to discuss with their Faculty Advisor and/or the Office of the Registrar questions relating to their withdrawal decision specifically relating to financial assistance, study permit requirements, prerequisites for subsequent courses, readmission, and/or graduation timeline. Students who do not formally withdraw from a course are still considered registered in the course, even if they are no longer attending classes. In this case, students will be assigned a grade based on coursework completed as per the course syllabus and are responsible to pay the tuition and fees assessed for the course. Under extenuating circumstances, students may request from the Office of the Registrar a course(s) withdrawal after the Withdrawal deadline and until the last day of classes. Extenuating circumstances typically consider situations such as medical emergencies, compassionate grounds, or unforeseen conditions/situations beyond the students' control that arise after the start of the semester and are considered on a case-by-case basis. Supporting documentation from a physician or Registered Health Professional must accompany this request.

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

Exam Scheduling

Students who find a conflict in their exam schedule must submit a *Revised Final Exam Time Application* to the Office of the Registrar by the deadline noted in the Academic Calendar. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; or 2) the scheduled final examination slot results in three consecutive examination

periods. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

Communication

Your Ambrose email account is the University's primary and official mode of communication with you. Information delivered to your Ambrose email is considered official notification. Ambrose University is not responsible for your failure to receive important information delivered to your Ambrose email.

Lecture Recording

The recording of lectures or any other classroom academic activity, other than an audio recording as an accommodation, is prohibited except at the discretion of the instructor. Any use other than that agreed upon with the instructor constitutes academic misconduct and may result in suspension or expulsion. Permission to allow a lecture recording is not a transfer of any copyrights, so such recordings may be used only for individual or group study with other students enrolled in the same class and may not be reproduced, transferred, distributed or displayed in any public or commercial manner. Student must destroy recordings in any, and all formats at the end of the semester in which they are enrolled in the class. All students recording lectures, must sign the Permission Form to audio record lectures which is available through the Office of the Registrar.

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.

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/academics/academic-calendar>

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.

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/sas/writing-services>

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
- For immediate crisis support, there are staff on campus who are trained in Suicide Intervention Skills and can help you access mental health support. See <https://ambrose.edu/student-life/crisissupport> for a list of staff members.
- For additional wellness resources go to the Ambrose wellness page: <https://ambrose.edu/wellness>

Off Campus:

- Distress Centre - 403-266-4357
- Alberta Mental Health Helpline - 1-877-303-2642 (Toll free)
- Sheldon Chumir Health Care Centre - 403-955-6200
- Emergency - 911

Sexual Violence Support

We are committed to supporting students who have experienced gender based sexual violence in the past or while at Ambrose. Many of the staff, faculty, and student leaders have received Sexual Violence Response to Disclosure training. We will support you and help you find the resources you need and you can access information about reporting. Information about the Sexual Violence policy and on and off campus supports can be found on our website— ambrose.edu/sexual-violence-response-and-awareness.

Off Campus:

- Alberta's Online for Sexual Violence - 1-866-403-8000 call or text
- Clinic: Sheldon Chumir Health Centre - 403-955-6200
- Calgary Communities Against Sexual Abuse - 403-237-5888
- Chat: www.calgarycasa.com

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