ZOO*4070 - Animal Behaviour

Fall 2026 Course Outline
Section: 01
Credits: 0.50

Land Acknowledgement: Guelph

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Métis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Métis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

Calendar Description

This course provides an introduction to the theories and principles of the behaviour of animals. It includes comparative studies of learning, socialization, social interaction, and other components of animal behaviour.
Prerequisite(s): BIOL*2400, (STAT*2040 or STAT*2230)
Department(s): Department of Integrative Biology

Course Description

This course will explore the scientific theories and methods used to understand how and why animals behave the way they do. Using a variety of case studies and in-class discussions, we will examine ecological and evolutionary perspectives for the diversity of behaviour in wild animals, as well as the genetic, hormonal, and sensory-motor mechanisms behind the development and maintenance of these behaviours. Class will consist of a mixture of lectures, discussions, demonstrations, and audio-visual presentations. Students will be required to take an active role in class and will be responsible for reading scientific literature that accompanies the lecture material. A core component of the course will be an independent small-group project that will involve creating a study, developing hypotheses and predictions, collecting data in the field or lab, and presenting results in a conference-style poster format among peers.

Lecture Schedule

MonWedFri 11:30am-12:20pm in JTP*2266 (9/10 to 12/22)

Instructor Information

Ruth Rivkin
Email: rrivkin@uoguelph.ca
Office Hours: TBA in class

Additional Support

Teaching Assistants:

1. Darius Rose (darius@uoguelph.ca)
2. Jasmine Mitha (jmitha@uoguelph.ca)

Learning Resources

Required Resources

Please see Courselink (Website) (https://courselink.uoguelph.ca/) for a list of lectures and course readings.

Course Resources

Lectures will not follow a specific textbook. Instead, there will be *required readings* for this course that will be posted on Courselink. Many articles are from American Scientist, a popular magazine, so the articles are written in an accessible manner. The content of the readings will not be covered in detail during the lectures but each reading is connected to a specific lecture topic. In preparation for tests, students are required to identify connections between the content of the readings and material covered in class, particularly how the theories discussed in lectures apply to the articles.

All articles are available on Courselink under "Required Reading".

Additional resources (articles, videos, etc.) will serve as supports to learning of specific topics, theories, and concepts and will be made available on Courselink.

Campus Resources

If you are concerned about any aspect of your academic program: Make an appointment with a Program Counsellor (https://www.uoguelph.ca/uaic/programcounsellors) in your degree program.

If you are struggling to succeed academically: There are numerous academic resources offered by the Learning Commons (https://www.lib.uoguelph.ca/using-library/spaces/learning-commons) including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills.

Cost of Textbooks and Learning Resources

There are no textbooks for this course.

Course Level Learning Outcomes

1. *Understand* and critically *evaluate* major theories in animal behaviour
2. *Apply* the scientific method to study behaviour
3. *Apply* evolutionary theory to understand how and why animals behave the way they do
4. *Assess* and *discriminate* both proximate and ultimate elements of animal behaviour
5. *Design* and *implement* an independent study examining behaviour
6. C*ollect* and *analyze* behavioural field data
7. C*ommunicate* science to your peers and to the public

Course Content

Lectures will be composed of case studies, group discussions, and interactive demonstrations designed to engage and familiarize students with the major theories in animal behaviour and the diversity of behaviours found in wild animals. The midterm and final exams will be primarily short and long answer with a few multiple-choice questions. Both exams will be designed to test critical thinking skills rather than simply recall basic information, so students will be required to develop a deep understanding of concepts rather than memorize specific types of behaviours. The midterm will cover material presented from the start of class to the beginning of Week 7, and the final will cover all material covered in class, with an emphasis on material from the latter half of the semester.

In addition to a midterm and a final, students will undertake a term-long project in groups of 5 people. The project provides an authentic, hands-on experience in the scientific study of animal behaviour by requiring students to conduct independent research from start to finish. Students will design a study, collect data in the field, analyze and interpret the data, and then present their results to their peers and the public in the form of a poster. This project is designed to evaluate critical thinking skills, ability to formulate hypotheses and predictions, collect and analyze data, and present results in a professional manner. Full details about the project will be provided in the first class and a complete marking rubric and additional information will be posted on the Courselink course site. Students will also be provided weekly in-class opportunities for consultation with instructors and TAs and a chance to do focused group work.

Schedule of Topics and Assignments

Week of	Topic	Activities	Due
9/11	Course Introduction Group Project Requirements		

9/14	Approaches to Studying Behaviour In-class group work	Reading: Why male ground squirrels disperse
9/21	Evolution of Behaviour In-class group work	Reading: Evolution for the good of the group Reading: The Establishment and Maintenance of Dominance Hierarchies Reading: The Lion's Mane
9/28	Sociality and social structures In-class group work	Reading: Physiology of helping in scrub jays Group Project Proposal Due Oct 2
10/5	Altrusim & inclusive fitness Eusociality In-class group work	Reading: Nake mole-rats Self/Peer Evaluation I Due Oct 9
10/12		Thanksgiving Holiday
10/14	Cooperation I In-class group work	Reading: Why ravens share
10/19	Cooperation II Midterm Review Class Midterm Oct 23	
10/26	Parental care In-class group work	Reading: Avian siblicide
11/2	Habitat use In-class group	Reading: A Landscape of Fear of Humans Self/Peer Evaluation II Due Oct 9
11/9	Territoriality Foraging In-class group work	Reading: Bird Song and the Problem of Honest Communication Reading: Foraging by Seabirds on an Olfactory Landscape
11/16	Sexual Selection In-class group work	Reading: Shaping brain sexuality Reading: Why do bowerbirds build bowers? Reading: Testosterone and aggression in birds
11/23	Human Behaviour In-class group work	Reading: How voice pitch influences our choice of leaders
11/30	Poster Presentations	Poster Evaluations Due Dec 04 Self/Peer Evaluation III Due Dec 04

Grading Schemes

Exams (total: 50%)

- Midterm (20%) - Oct 23
- Final (30%) - TBD

Group Assessments (total: 50%)

- Proposal (15%) - Oct 2
- Poster presentation (25%) - Nov 30, Dec 02, Dec 04
- Evaluations of other posters (10%) - Nov 30, Dec 02, Dec 04

Last Day to Drop Course

The final day to drop Fall 2026 courses without academic penalty is the last day of classes: December 04

After this date, a mark will be recorded, whether course work is completed or not (a zero is assigned for missed tests/assignments). This mark will show on the student's transcript and will be calculated into their average.

Course Grading Policies

Late Assignments

10% penalty for each day late, unless previously discussed with the course instructor.

Course Standard Statements

Rights and Responsibilities of Students

As a student in this course, you are entitled to:

1. Be treated with respect and dignity
2. A learning environment where you can be yourself, express your own ideas, and make mistakes
3. Receive constructive feedback in a timely fashion
4. Receive academic consideration when there are eligible grounds, and appropriate accommodations when registered with Student Accessibility Services.

As a student in this course, you are expected to conduct yourself with honesty and with respect and compassion for your peers, instructors, and any external guests.

Course Policies

Attendance to all classes is recommended. Friday classes will typically be spent in group work, with access to instructors and TAs. Lecture slides will be posted in advance of class. Slides will be recorded during class to facilitate asynchronous learning. Availability and quality of recordings is subject to change based on technological capacities in the lecture hall.

Course Technology Requirements

Technology requirements may vary depending on class.

Department of Integrative Biology Standard Statements

Academic Advisors

If you are concerned about any aspect of your academic program. Please make an appointment with a program counsellor in your degree program. B.Sc. Academic Advising (https://bsc.uoguelph.ca/)

Academic Support

Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: Chemistry / Physics Help (https://www.lib.uoguelph.ca/using-library/spaces/science-commons/) and Math / Statistics Help (https://www.lib.uoguelph.ca/using-library/spaces/science-commons/)

Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning (https://www.uoguelph.ca/webadvisor/) as they become available.

Online Behaviour

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students
- Using obscene or offensive language online
- Copying or presenting someone else's work as your own
- Adapting information from the Internet without using proper citations or references
- Buying or selling term papers or assignments
- Posting or selling course materials to course notes websites
- Having someone else complete your quiz or completing a quiz for/with another student
- Stating false claims about lost quiz answers or other assignment submissions

- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors and/or Tas
- Using the course website to promote profit-driven products or services
- Attempting to compromise the security or functionality of the learning management system
- Sharing your username and password
- Recording lectures without the permission of the instructor

Personal Information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (http://www.e-laws.gov.on.ca/index.html.html) (FIPPA). This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information policies (https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml) please see the Undergraduate Calendar.

Wellness

If you are struggling with personal or health issues:

- Counselling Services | Student Wellness (https://wellness.uoguelph.ca/counselling) offers individualized appointments to help students work through personal struggles that may be impacting their academic performance.
- Student Health Services (https://www.uoguelph.ca/studenthealthservices/clinic) is located on campus and is available to provide medical attention.
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops (https://www.selfregulationskills.ca/programs/relaxation-skills/) and one-on-one sessions related to stress management and high performance situations.

Standard Statements for Undergraduate Courses

Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-misconduct/) is outlined in the Undergraduate Calendar.

Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability. Use of the SAS Exam Centre requires students to make a booking at least 10 business days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). For students at the Guelph campus, information can be found on the SAS website. (https://www.uoguelph.ca/sas)

Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic calendar for information on regulations and procedures for Academic Accommodations of Religious Obligations (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-accommodation-religious-obligations/).

Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all undergraduate students except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in the Undergraduate Calendar - Dropping Courses (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/dropping-courses/).

Email Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness (https://wellness.uoguelph.ca/). If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator (https://wellness.uoguelph.ca/navigators) who can help develop a plan to manage and support your mental health or check out our mental wellbeing resources (https://wellness.uoguelph.ca/shine-this-year). The Student Wellness team are here to help and welcome the opportunity to connect with you.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

Recording of Materials

Presentations that are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources

The Academic Calendars (http://www.uoguelph.ca/registrar/calendars/?index) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for Academic Consideration. (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/)