

Biology 3436F Course Outline

1. Course Information

Course Information

Animal Behaviour – Biology 3436F – Fall 2025

Lectures will occur every week throughout the term. Labs will occur on seven weeks during the term. See full schedule for details.

List of Prerequisites

Pre-requisite: Statistics course (half or full course)

- Biology 2244A/B
- Statistical Sciences 2035, 2141A/B, 2244A/B
- Psychology 2810

Pre/Co-requisite: Biology 2483A

Anti-requisite: Psychology 3221F/G

Unless you have either the prerequisites for this course or written special permission from the Department of Biology to enroll in it, you may be removed and withdrawn from this course in accordance with university policy. This may be done after the add/drop deadline of the academic term, and the course will be marked as withdrawn (WDN) on your academic record. This decision may not be appealed.

2. Instructor Information

Instructor	Email	Office
Dr. Caroline Strang	cstrang@uwo.ca	BGS 2078
Teaching Assistants		
TBA		

Students must use their Western (@uwo.ca) email addresses when contacting their instructors and teaching assistants. Please include “Bio3436” in the subject line of all emails. Emails to either the instructor or teaching assistants will not be answered within 24h of exams or lab report deadlines.

3. Course Syllabus, Schedule, Delivery Mode

This course is an introduction to the science of animal behaviour with emphasis on the evolution and adaptive nature of behaviour. A comparative experimental approach is used to illustrate topics such as the development, control, and organization of behaviour, foraging, predation, mate choice, mating systems, parental care, communication, and social behaviour.

This course includes lectures and a series of labs that support the content delivered during lectures. The labs involve collecting and analysing data, generating and testing hypotheses, interpreting results, and then communicating those results in lab reports.

Learning Outcomes

Lectures:

1. Understand natural selection and how it can shape behaviour
2. Distinguish among evolutionary, functional, causal, and developmental questions about animal behaviour
3. Differentiate among ecological, behavioural, and neural level of analysis of behaviour
4. Describe and explain key concepts and experiments in animal behaviour

Labs:

1. Recognize and measure variation in behavioural traits
2. Formulate testable hypotheses about animal behaviour
3. Generate and manage data using spreadsheets
4. Perform appropriate statistical analyses to analyze data
5. Organize and synthesize lab results

Key Sessional Dates:

Classes begin: September 4, 2025

Fall Reading Week: November 3 – 9, 2025

Classes end: December 9, 2025

Exam period: December 11 – 22, 2025

Lecture Schedule

The schedule of lecture topics is subject to change. Weekly material will be posted on the course webpage with confirmed topics for each week.

Class/Week	Description
1	Course overview & Introduction
2	Four questions about animal behaviour
3	Perception
4	Communication
5	Foraging
6	Sociality
7	Navigation
8	Sexual Selection
9	Mating Systems
10	Reading Week
11	Parental Care
12	Development

13	Brain & Behaviour
14	Anthropogenic influences on animal behaviour
15	Exam Review Session
Exam Period	FINAL EXAM

Lab Schedule

Session & Date	Details
Session 1	Computer lab: Stats refresher
Session 2	Experiment Lab 1: Ethogram development in bumblebees
Session 3	Computer Lab 1: Data analysis
Session 4	Experiment Lab 2: Dominance hierarchies in crayfish
Session 5	Computer Lab 2: Data analysis
Session 6	Experiment Lab 3: Mate choice in guppies
Session 7	Computer Lab 3: Data analysis

4. Course Materials

Textbook

• **Recommended textbook:** Animal Behaviour - D. Rubenstein - Oxford(12th edition/prior editions are acceptable) – Available at the UWO bookstore

The textbook costs: \$194.85 or \$88.00 (ebook 180 day rental)

• Students are welcome to purchase second-hand or earlier editions of this textbook.

Other learning materials

- A lab manual will be provided as a PDF on the course webpage
- Statistical analyses will be conducted using the statistical software package JASP. This is free software available to download at: <https://jasp-stats.org/download/>

All course material will be posted to OWL: <https://westernu.brightspace.com/>

Students are responsible for checking the course OWL site (<https://westernu.brightspace.com/>) regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance with the course OWL site, they can seek support on the [OWL Brightspace Help](#) page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

Assignments (3)	30%	Lab reports, 10% each
Midterm Test	30%	(2 hours, in-person)
		<ul style="list-style-type: none">• Covers material from weeks 1 - 6
Final Exam	40%	(2 hours, in-person)
		<ul style="list-style-type: none">• Covers material from weeks 7 - 14

Use of Generative AI Tools

The use of generative AI tools (e.g., ChatGPT, Copilot, Gemini) is **permitted** for idea generation aspects of the lab reports, but **prohibited** for all data analysis and written components.

General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs*, posted on the Academic Calendar: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:

https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

- **Midterm** (Designated by the instructor as the one assessment that always requires documentation when requesting Academic Consideration)

When a student mistakenly submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

Evaluation Scheme for Missed Assessments

Midterm: Missing the midterm requires formal supporting documentation. If a student misses the midterm, including conflicts with another midterm, then the student will write a make-up midterm. If a student is unable to write either the midterm or the make-up midterm then the midterm will be reweighted to the final exam.

Lab Reports: If a student fails to submit a lab report, they will be assigned a zero for that report. Each lab report is granted a 48-hour period after the deadline with no late penalty. If the student is unable to submit the lab within this period, they require academic consideration to accommodate a late submission. Students who submit academic consideration without documentation must submit their report within 72 hours of the original deadline. Academic consideration requests without documentation will be denied for extensions beyond 72 hours beyond the original deadline. In this case, students must request academic consideration with documentation to the Academic Advising portal. If an extended deadline is supported, the student must submit their lab report within 24 hours of the end of their extension period. Late lab reports cannot be submitted after grades/feedback have been returned to any lab section in any case. If academic consideration is granted and the lab reported cannot be completed at all, the weight of the lab report will be distributed to the other two reports.

Final Exam: Accommodation for the final exam as scheduled by the OOR always requires formal supporting documentation. Students who miss the final exam and are granted academic consideration will write the department scheduled makeup final exam.

When a student misses both the Final Exam and make-up Final and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

Essential Learning Requirements

Even when Academic Considerations are granted for missed coursework, the following are deemed essential to earn a passing grade.

- a minimum number of two submitted lab reports

In such cases that a student fails to complete and submit at least two of three lab reports and has been granted formal academic consideration, they may complete the remaining lab(s) in the next offering of the course. In this case, they will receive a grade of Incomplete (INC) and their maximum course load may be reduced during the term in which they complete their course requirements.

Coursework with Assessment Flexibility

By policy, instructors may deny Academic Consideration requests for the following assessments with built-in flexibility:

Deadline with a No-Late-Penalty Period Assignments. Students are expected to submit each of the three lab reports by their respective deadlines. Should extenuating circumstances arise, students do not need to request Academic Consideration and they are permitted to submit their lab reports up to 48 hours past the deadline without a late penalty. Should students submit their assessment beyond 48 hours past the deadline without accommodation, a 10% deduction will apply at the end of the 48 hours period, with an additional 10% per day. Academic Consideration requests may be granted only for extenuating circumstances that started before the deadline and lasted longer than the No-Late-Penalty Period (48 hours).

- **For example:** If your lab report is due on Monday, October 7th at 2:30pm, then you have until Wednesday, October 9th at 2:30pm to submit with no-late penalty. If you require accommodation for an extension, you must submit for academic consideration. If you submit without documentation, you have until Thursday, October 10th at 2:30pm to submit your lab. If you submit with documentation and are granted accommodation until Monday, October 14th, you must submit by end of day October 15th. If you do not submit for, or receive, approved academic accommodation and submit your report on Friday October 11th at 4pm, you will receive a 20% deduction (day 1: Thursday after 2:30, day 2: Friday after 2:30).

6. Additional Statements

6.1 Religious Accommodation

When conflicts arise with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible, but not later than two weeks prior to the writing of the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays - <https://www.edi.uwo.ca>

6.2 Academic Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf.

6.3 General Academic Policies

The website for Registrar Services is <https://www.registrar.uwo.ca/>.

Use of @uwo.ca email: In accordance with policy, https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf, the centrally administered e-mail account provided to students will be considered the individual's official university email address. It is the responsibility of the account holder to ensure that emails received from the University at their official university address are attended to in a timely manner.

Requests for Relief (formally known as "appeals")

Policy on Request for Relief from Academic Decision:

https://uwo.ca/univsec/pdf/academic_policies/appeals/requests_for_relief_from_academic_decisions.pdf

Procedures on Request for Relief from Academic Decision (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_requests_for_relief_procedure.pdf

6.4 Scholastic Offences

Policy on Scholastic Offences:

https://uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_offences.pdf

Procedures on Scholastic Offences (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_scholastic_offence_procedure.pdf

Use of Electronic Devices During Assessments

In courses offered by the Faculty of Science, the possession of unauthorized electronic devices during any in-person assessment (such as tests, midterms, and final examinations) is strictly prohibited. This includes, but is not limited to: mobile phones, smart watches, smart glasses, and wireless earbuds or headphones.

Unless explicitly stated otherwise in advance by the instructor, the presence of any such device at your desk, on your person, or within reach during an assessment will be treated as a *scholastic offence*, even if the device is not in use.

Only devices expressly permitted by the instructor (e.g., non-programmable calculators) may be brought into the assessment room. It is your responsibility to review and comply with these expectations.

Use of Generative AI Tools

Unless otherwise stated, the use of generative AI tools (e.g., ChatGPT, Microsoft Copilot, Google Gemini, or similar platforms) is **not permitted** in the completion of any course assessments, including but not limited to: assignments, lab reports, presentations, tests, and final examinations.

Using such tools for content generation, code writing, problem solving, translation, or summarization—when not explicitly allowed—will be treated as a **scholastic offence**.

If the use of generative AI is permitted for a particular assessment, the conditions of use will be specified by the instructor in advance. If no such permission is granted, students must assume that use is prohibited. It is your responsibility to seek clarification before using any AI tools in academic work.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

6.5 Support Services

Please visit the Science & Basic Medical Sciences Academic Advising webpage for information on adding/dropping courses, academic considerations for absences, requests for relief, exam conflicts, and many other academic-related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. If you have any questions regarding accommodations, you may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible_education/index.html

Learning-skills counsellors at Learning Development and Success (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.

This course is supported by the Science Student Donation Fund. If you are a student registered in the Faculty of Science or the Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is administered by the Science Students' Council (SSC). One or more grants from the Fund have allowed for the purchase of equipment integral to teaching this course. You may opt out of the Fee by the end of September of each academic year by completing the online form linked from the Faculty of Science's Academic Advising site. For further information on the process of awarding grants from the Fund or how these grants have benefitted undergraduate education in this course, consult the Chair of the Department or email the Science Students' Council at ssc@uwo.ca.