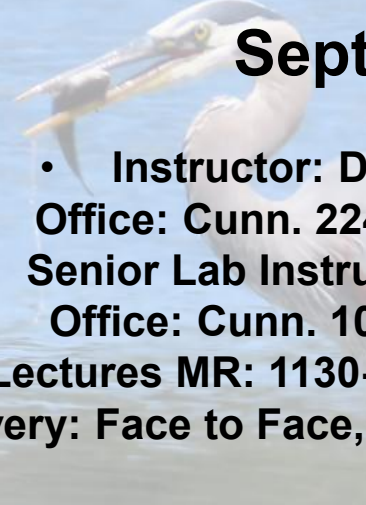




Animal Behaviour

BIOLOGY 345 (10364)

Sept 2026

- Instructor: Dr. T. E. Reimchen
- Office: Cunn. 224, reimchen@uvic.ca
- Senior Lab Instructor: Dr. Rossi Marx
- Office: Cunn. 105, zoology@uvic.ca
- Lectures MR: 1130-1250, BobWright A104
- Delivery: Face to Face, PowerPoint and Brightspaces

- **Course description:** Evolutionary and comparative analyses of animal behaviour. Topics include laterality and hemispheric dominance, evolution of the nervous system, genetic and environmental influences on behaviour, nature/nurture controversies, sensory modalities, communication, the evolution of language, defense and foraging behaviours, sex and mate choice, sociality, empathy, conflict play, self-awareness, consciousness and animal rights. Laboratory includes observational and experimental approaches to behaviour using representative invertebrates. All students will undertake a field research project investigating behavioural traits in birds and mammals.
- Course goals: At the end of this course, you will:
 - - be able to explain the complexity and continuity of behavioural processes across the diversity of life, from the simplest organism to the most complex and from the less-derived to the most-derived.
 - -be able to define and provide examples for ethological terms
 - -be able to analyse and critically evaluate relevant scientific papers
 - -be able to collect, analyse, and summarize behavioural data and provide an oral and a written scientific report of the data
 - -have gained an appreciation of the ethical issues involved with human-animal interactions

General outline of lecture topics

- **Historical study of animal behaviour**
- **Behavioural lateralization –left vs right biases in animal behaviour**
- **Nervous systems among animal phyla: anatomy, receptors, neurotransmitters**
- **Parsing behaviour: genetic, epigenetic, hormonal, environmental**
- **Communication, sensory modes and sensory exploitation**
- **Defenses against predators**
- **Optimal foraging, zoopharmacognosy**
- **Habitat choice and territoriality –where and why?**
- **Evolution of sex and mate choice –who and why?**
- **Monogamy/polygyny/polyandry – how often and why?**
- **Parental tactics, brood parasitism, relative investment, infanticide**
- **Aggression, conflict, warfare, sociality, altruism**
- **Evolution of play**
- **Self-awareness, consciousness, empathy, animal rights**
- **Overview: continuity of process**

Course Text: suggested but not essential:

Animal Behavior (12th edition-2023)

- Author DR Rubenstein Bookstore E-Book ~\$88

-alternate: hardcopy text: Animal Behaviour- J. Alcock, any edition

-Science students are expected to browse current weekly periodicals for general content including Nature, Science and New Scientist.

- **Some thought-provoking reading:**
- B. Heinrich 1999: 'Mind of the Raven'
- V. Evans 2014: 'The Language Myth'
- D. Griffin 2001: 'Animal Minds: beyond cognition to consciousness'
- P. Singer 1975-2015 (first to last edition): Animal Liberation
- F. deWaal 2009: 'The Age of Empathy'
- T. Regan 2004: 'Empty Cages'
- Excellent documentaries
 - David Attenborough- The Life of Birds, The Life of Mammals, Mammals,
 - Life in the Undergrowth, Planet Earth, Life in Cold Blood,
 - Blue Planet II, Life, The Hunt, The Cove, etc

There will be 5 minute break halfway through each lecture devoted to a question and answer session concerning any issues from the previous or current lecture. Pdfs of most lecture material will be posted on Brightspaces later in the day. The lectures will be recorded but are not live-streamed. Students are responsible for checking their own records and registration status and should review the UVic Student Code of Conduct.



Lecture Evaluation

Mid-term quiz#1 Oct 08 (12.5%) - short answer questions (30 minutes duration). Mid-term quiz#2 Nov. 05 (12.5%) - short answer questions (30 minutes duration). Final exam(TBA) (30%) - combination of short answers and essay written during the examination. The essay is cumulative. A crib sheet (13 cm * 8 cm) is allowed for the midterms but not for the final .

Deferred exams will be offered only for medical issues or for previously approved deferrals according to UVic policy:

(<https://www.uvic.ca/calendar/future/undergrad/index.php#/policy/HJjAxiGO4>)

Students receiving less than 45% on the final lecture exam receive a failing grade for the course. The Biology Dept does not offer supplemental final exams.

The two midterm exams, the final exam and the laboratory component must be completed to receive a grade other than “N”. Failure to complete one or more of these elements will result in a grade of “N” regardless of the cumulative percentage on other elements of the course. An N is a failing grade, and it factors into a student’s GPA as 0. The maximum percentage that can accompany an N on a student’s transcript is 49.

“In any science course which includes laboratory work, students will be required to achieve satisfactory standing in both the laboratory and lecture components of the course as outlined in the Academic Calendar” (UVic policy)

Laboratory

Simple and complex behaviours across a diversity of taxonomic groups including protists, jellies, sea anemones, flatworms, earthworms, bivalves, nudibranchs, crabs, crickets, crayfish, sea cucumbers and urchins. Students will undertake a field project with an option of studying either crows, ducks, gulls, squirrels or dogs. Students are encouraged to visit Goldstream in October or November to watch spawning chum salmon activity.



Biol345 Lab Schedule Fall 2026

Week of	Topic	Assignment due
Sep. 14	Introductory Lab & Behaviour in Non-Animals	✓; Preferences for project species
Sep. 21	Stimulus – Response Behaviours in Cnidarians	✓; 5 min project video scores; Project paper 1 (fowl)
Sep. 28	National Day for Truth and Reconciliation Sep. 30 - Project Work	Oct. 01: Tutorial 1
Oct. 05	Writing Workshop	10 min project video scores; Project paper 2 (squirrels) and 3 (dogs)
Oct. 12	Thanksgiving - Project Work	Oct. 15: Project interim results
Oct. 19	Learning Experiments	✓
Oct. 26	Learning Experiments continued	✓
Nov. 02	Predator - Prey Interactions & Statistics Workshop	✓; Nov. 05: Tutorial 2
Nov. 09	Reading Break – No Labs	
Nov. 16	Agonistic Behaviour in Crayfish & Presentation Workshop	✓
Nov. 23	Lab exam	Nov. 27: Project report & final results
Nov. 30	Project Presentations	Powerpoint presentation
TBA	Optional Field Trip: Goldstream Park for Salmon Migration	

BIOLOGY 345 ANIMAL BEHAVIOUR

Distribution of Marks

Lab Exercises and Pop Quizzes	8%
Tutorials (2@2%)	4%
Project	23%
Interim results	3%
Presentation	5%
Report	15%
Lab exam	10%
Total	45%

Laboratory Manual Fall 2026

Important Dates and Issues

Sept 09: First day of classes (Sept 10 for 345)

Sept 19: last day for 100% reduction of tuition fees for standard first term and full year courses. 50% of tuition fees will be assessed for courses dropped after this date

Sept 25: Last day for adding courses that begin in the first term

**Sept 30: Last day for paying first term fees without penalty
National Day for Truth and Reconciliation, UVic closed)**

Oct 08: first lecture midterm exam (30 minutes)

Oct 13: Last day for 50% reduction of tuition fees. 100% of tuition fees will be assessed for courses dropped after this date

Oct 31: Last day for withdrawing from first term courses without penalty of failure

Nov 05: Second lecture midterm exam (30 minutes)

Nov 9-11: Reading break (Remembrance Day-Nov 11)

Dec 07: Last 345 lecture

Dec 10: Examinations begin for all faculties

We acknowledge and respect the Ləkʷəŋən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Ləkʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

Evolutionary and Ecological Studies in Reimchen's Lab



Dr. T. E. Reimchen
Department of Biology
PO Box 3020
University of Victoria
Victoria, British
Columbia, V8W 3N5,
Canada
reimchen@uvic.ca

1: Brief canoe sequence of Drizzle Lake ([video](#))

2: Underwater video of nesting male stickleback and
curious Common Loons in dystrophic (red-shifted) waters
([video](#)). see [Reimchen 1989](#) and [Marques et al. 2017](#).



Lab Members



Adaptive Radiation &
Functional Morphology



Haida Gwaii
Lake Biophysics



Loon Research



Salmon Forest
Project



Molecular Studies



Publications



Diving photos

Supporting Agencies