- Animal Behaviour
- BIOLOGY 345 (10385)
 - Sept 2025
 - 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, RSN 133
- Delivery: Face to Face, PowerPt and Brightspaces
- Course description: Evolutionary and comparative analyses of animal behaviour. Topics include foraging behaviours, evolution of sex, mate choice, sociality, empathy, conflict and play, nature/nurture controversies, sensory modalities, communication and the evolution of language, hemispheric dominance and laterality, taxonomic diversity of nervous systems, proximate and ultimate mechanisms for interpreting behaviour. Laboratory includes observational and experimental approaches to behaviour of representative invertebrate and vertebrate taxa and a field research
- 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 ~\$85
- -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 3-5 minute break halfway through most lectures devoted to questions and answers concerning any issues from the previous or current lecture. Attendance to lectures is expected (a marking sheet will be circulated occasionally)

All Powerpoint images (but not videos) shown in class will be posted on BrightSpaces later in the day.

Lectures will not be live-streamed but most will be recorded and posted on BrightSpaces later in the day.

Students are responsible for checking their own records and registration status and should review the UVic Student Code of Conduct.



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 any salmon spawning stream during October or November to watch spawning activity (eg. Goldstream near Victoria, Ayum Ck near Sooke).





Biol345 Lab Schedule Fall 2025

Week of	Topic	Assignment due	
Sep. 08	Introductory Lab & Behaviour in Non- Animals	Preferences for project species	
Sep. 15	Learning Experiments: flatworms, earthworms, crickets, and snails	√; Sep. 15: Project discussion paper 1 (fowl), individual assignment	
Sep. 22	Learning Experiments: flatworms, earthworms, crickets, and snails continued	\(\sigma\); Sep. 22: Project discussion paper 2 (squirrels), group assignment; 30 min project observation video scores	
Sep. 29	National Day for Truth and Reconciliation Sep. 30 - Project Work	Sep. 29: Project discussion paper 3 (dogs), group assignment	
Oct. 06	Writing & Statistics Workshops	Oct. 06: Tutorial 1; 30 min project observation video scores	
Oct. 13	Thanksgiving - Project Work	Oct. 15: Project interim results	
Oct. 20	Stimulus – Response Behaviours in Cnidarians & Learning in shore crabs	√; 30 min project observation video scores	
Oct. 27	Predator - Prey Interactions	√	
Nov. 03	Agonistic Behaviour in Crayfish	√; <i>Nov.</i> 03: <i>Tutorial</i> 2; 30 min project observation video scores	
Nov. 10	Reading Break – No Labs		
Nov. 17	Presentation Workshop	Nov. 20: Project report & final results	
Nov. 24	Lab exam		
Dec. 01	Project Presentations	Powerpoint presentation	
TBA	Optional Field Trip: Goldstream Park for Salmon Migration		

Distribution of Marks		
Lab Exercises and Pop Quizzes	6%	
Tutorials (2@2%)	4%	
Project		25%
Paper discussions	1%	
Interim results	2%	
Video scores	2%	
Presentation	5%	
Report	15%	
Lab exam		10%

Total

45%

Lecture Evaluation

Mid-term quiz#1 Oct 06 (12.5%) - short answer questions (30 minutes duration). Mid-term quiz#2 Nov. 03 (12.5%) - short answer questions (30 minutes duration). Final exam(TBA) (30%) - combination of short answers and essay.

Deferred exams will be offered only for medical issues or for previously approved deferrals. 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)

Important Dates

Sept 03: First day of classes(Sept 04 for B345)

Sept 16: 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 19: Last day for adding courses that begin in the first term

Sept 30: Last day for paying first term fees without penalty
University closed (National Day for Truth and Reconciliation)

Oct 06: First lecture mid-term exam (30 minutes during lecture period)

Oct 07: Last day for 50% reduction of tuition fees. 100% of tuition fees will be

assessed for courses dropped after this date

Oct 14: University closed (Thanksgiving Day

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

Nov 03: Second mid-term exam (30 minutes during lecture period)

Nov 10-12: Reading Break

Nov 11: University Closed (Remembrance Day)

Dec 03: Last day of classes

Dec 06: Examinations begin for all faculties

Dec 20: Examinations end for all faculties

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

Enjoy the course