Fall 2020
Department of Biology, University of Victoria

Course Description

Examination of the neural basis of behaviour. Insights into the neuronal organization of behaviour through examination of neural solutions that have evolved in animals to solve problems encountered in their particular environments. Examples in individual species will be used to illustrate how neuronal systems integrate information to shape behaviour in a real-world context. Research papers and seminar presentations based on the primary literature will be emphasized.

Instructors

- **Lecture:**   Rossi Marx (zoology@uvic.ca); when you send an email, please put 'Biology 448' in the message line.
  Office hours by appointment.

Tutorials: Nicholas Planidin (nplanidi@uvic.ca); office hours: TBA.

Schedule

- **Lectures:**   M, Th: 1:00 – 2:20 pm   Zoom
- **Tutorials:**   Th: T01:   2:30 – 3:50 pm   Zoom
                                  T02:   4:00 – 5:20 pm   Zoom
                                  T03:   5:30 – 6:50 pm   Zoom
                           F: T04   1:30 – 2:50 pm   Zoom

Readings / Lecture Notes

- **Library Course Reserves:**

  Camhi, J.M. 1984. *Neuroethology.* Sinauer Associates Inc., Sunderland, Mass.

  Carew, T.J. 2000. *Behavioural Neurobiology.* Sinauer Associates Inc., Sunderland, Mass.

  Additional materials may be placed on reserve during the course of the term.

- **Brightspace:**

  Please note that any posted materials are for course purposes only and are not to be distributed! Fair dealing statement: Copies are made pursuant to the Fair Dealing Guidelines of the University, library database licenses, and other university licenses and policies. The copy may only be used for the purpose of research, private study, criticism, review, news reporting, education, satire or parody. If the copy is used for the purpose of review, criticism or news reporting, the source and the name of the author must be mentioned. The use of the copy for any other purpose may require the permission of the copyright owner.

Prerequisites: Biology 345 and / or Biology 365

Distribution of Marks

Midterm (Oct. 19)	**20%**
Lecture assignment	**5%**
Final Exam (scheduled by Records)	**35%**
Critical Analysis Paper (due Nov. 16, topic due Nov. 02)	**15%**
Presentation (10 min) based on evaluation of paper (start Nov. 19/20)	**5%**
Tutorials	**20%**

Papers (1 @ 3%, due Oct. 01; 1 @ 7%, due Oct. 29)	(10%)	
Preparation/Participation	(5%)	
Marking Assignment (due Nov. 05)	(5%)	_____
	Total	**100%**

In order to receive the full preparation marks for the weekly tutorials, you will need to provide, in writing, three points, good or bad, about the paper that is to be discussed each week (no need to elaborate, just the three points will suffice).

Papers

The papers are critical analyses of original research papers dealing with neuroethological topics. Detailed instructions will be provided in class; in brief, your task is to provide points, good or bad, regarding the **science** of the research paper in question, and to support your arguments.

For the format, use 1.5 spacing, Times Roman 12 point font, and 1 inch margins; no title page. Also see 'Writing Scientific Papers', 'How to critically read and analyze a scientific paper', and 'Critical Analyses: things to consider' posted on Brightspace.

- **Tutorial Papers** (original paper given)

    Paper 1 (3%): 1½ pages, including concluding sentence. This is an individual assignment. Provide two points, good or bad, regarding the science of the paper.

    Paper 2 (7%): 2 ½ pages, including concluding paragraph. You will be working in pairs for this assignment. Provide three points, good or bad, regarding the science of the paper.

- **Critical Analysis Paper**

    This is an individual assignment.

    Four written pages (excluding reference section and figures), based on original paper of your choice, at least five original references; includes brief (~ ¾ page) introduction providing background information for the scientific topic and summarizing the original paper, as well as a concluding paragraph. Provide three points, good or bad, regarding the science of the paper.

    The original paper should be as recent as possible, but preferably should have been published within the last five years. **The topic can be any topic within the realm of neuroethology, but the original paper should not just focus on behaviour, nor just focus on mechanisms and processing.** Along with your analysis, please also submit PDFs of or links to the original paper and of three of your most pertinent reference papers.

    Submit your papers as .doc or .docx files to Brightspace **by 1:00 pm** of the due dates.

Assessment Policy

You are responsible for attending lectures and discussions, and for reading the specified papers. Failure to do so can and likely will influence your class performance.

The assignments must be completed fully and on time. **Late assignments will not be accepted**, unless you can provide appropriate documentation (please refer to 'Academic Concessions' in the UVic academic calendar). Problems with computers or printers are *NOT* considered valid excuses for late assignments.

Except for paper 2 for Biol448 students, assignments are to be prepared by each student independently, even if they are based on collaborative discussions. Please keep in mind that *submitting other people's work, whether a fellow student's or a published author's, as your own is plagiarism and will be penalized. This is a serious offence.*

Biol516 students are required to submit all assignments individually and to prepare a lecture presentation in order to successfully complete the course.

Cheating and Plagiarism

The University and the Biology Department deal with cheating and plagiarism as a serious matter, since ignoring it could be interpreted as endorsing dishonest practice in one's later professional career. To claim ignorance of the University's policy on academic integrity is, therefore, not excused. Please read the policy carefully to avoid unpleasant misunderstandings. The policy can be found on the online UVic calendar (https://www.uvic.ca/calendar/undergrad/index.php#/policy/Sk_0xsM_V?bc=true&bcCurrent=08%20-%20Policy%20on%20Academic%20Integrity&bcGroup=Undergraduate%20Academic%20Regulations&bcItemType=policies).

The University of Victoria Biology department reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work.

Final Exam

The final exam will be based on information covered in lectures and tutorials.

The final exam can be deferred in cases of documented illness, accident, family affliction, or sporting commitments as a UVic athlete. If you expect to miss the exam for any of these reasons, please notify the instructor beforehand and produce supporting documentation as soon as possible. You must also fill out a Request for Academic Concession form, available from the Records office, as soon as possible. Travel plans are not a valid reason for missing the final exam.

Grading Policy

In determining final grades for the course, our spreadsheet will round your course score to the nearest whole percent. That is the official course grade that will be submitted for you.
We cannot change your grade for any reason, except if we have made an error calculating it. There is no extra work that you can do to raise your grade.

No supplemental final exam will be given in this course.

If you do not want your marks posted using your ID#, please notify us at the beginning of the term.

Planned Lecture Topics

Communication using Pheromones

Cephalopod behaviour, chemo- and mechanoreception, and learning

Mechanoreception in the Star-Nosed Mole

Neuroethology of Cricket Song

Echolocation in Bats

Academic Regulations and Policies

Please read the appropriate section of the current UVic Academic Calendar regarding your rights and obligations. It is your responsibility to check your records and registration status and to meet the ADD/DROP dates from the UVic calendar; you will not be dropped automatically from the course if you do not attend.

Important dates

On the UVic website you will find a fuller list of important dates, but the ones we have listed below are the ones that will matter to students in Biology 448 and to students wishing to add the course this term.

Wednesday, September 9	First day of classes
Thursday, September 17	**First day of tutorials in Biology 448**
Tuesday, September 22	Last day for 100% reduction of tuition fees for standard first-term and full-year courses
Friday, September 25	Last day for adding classes
Thursday, October 01	**Tutorial paper 1 due**
Monday, October 12	Thanksgiving Day
Tuesday, October 13	Last day for 50% reduction in tuition fees for standard courses; 100% of tuition fees will be assessed for courses dropped after this date
Monday, October 19	**Biology 448 Midterm Exam**
Thursday, October 29	**Tutorial paper 2 due**
Saturday, October 31	Last day for withdrawing from courses without penalty of failure
Monday, November 02	**Topic for Critical Analysis paper due**
Thursday, November 05	**Marking Assignment due**
Mon-Wed, November 09-11	**Reading break, no classes**
Monday, November 16	**Critical Analysis paper due**
Thursday, November 19/20	**Biology 448 Presentations start**
Friday, December 04	Last day of classes
Monday, December 07	First day of final exam period
Monday, December 21	Last day of final exam period

Course Experience Survey (CES)

We value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to us regarding the course and our teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey you will receive an email inviting you to do so. You will need to use your UVic netlink ID to access the survey, which can be done on your laptop, tablet, or mobile device. Please be thinking about this important activity during the course.

The CES system is available at this link: ces.uvic.ca/blue.

UVic is committed to promoting, providing and protecting a supportive and safe learning and working environment for all its members.