

**BIOLOGY 448 – NEUROETHOLOGY  
CRN 10386**

**Fall 2016**

**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](mailto:zoology@uvic.ca)); when you send an email, please put 'Biology 448' in the message line.  
Office hours / study group: by appointment / TBA.
- **Tutorials:** Dennis Saw ([sawd12@uvic.ca](mailto:sawd12@uvic.ca)); office hours: TBA.

**Schedule**

- **Lectures:** M, Th: 1:00 – 2:20 pm Cun146
- **Tutorials:** Th: T01: 2:30 – 3:50 pm ECS 128  
T02: 4:00 – 5:20 pm ECS 128  
T03: 5:30 – 6:50 pm ECS 128  
F: T04 1:30 – 2:50 pm Clea C116

**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.  
Kandel, E.R., Schwartz, J.H., Jessel, T.M., Siegelbaum, S.A., and Hudspeth, A.J. 2013 Principles of Neural Science, 5<sup>th</sup> edition. McGraw-Hill Education LLC, New York, N.Y.  
Zupanc, G.K.H. 2010. Behavioural Neurobiology. Oxford University Press, Oxford, UK  
Additional materials may be placed on reserve during the course of the term.
- **CourseSpaces:**  
**Please note that any posted materials are for course purposes only and are not to be distributed!**

**Prerequisites:** Biology 345 and / or Biology 365

**Class Conduct**

We would like to remind students that talking in class, texting, surfing, and reading a newspaper are all irksome to students sitting nearby and to the instructor. We ask that you be mindful of this and treat the people around you with respect and courtesy.

### Distribution of Marks

<b>Midterm</b> (Oct. 17)		<b>20%</b>
<b>Final Exam</b> (scheduled by Records)		<b>40%</b>
<b>Critical Analysis Paper</b> (due Nov. 14, topic due Oct. 31)		<b>15%</b>
<b>Presentation</b> (10 min) based on evaluation of paper		<b>5%</b>
<b>Tutorials</b>		<b>20%</b>
Papers (1 @ 3%, due Sep. 29; 1 @ 7%, due Oct. 27)	(10%)	
Preparation/Participation	( 5%)	
Marking Assignment	( 5%)	_____
	<b>Total</b>	<b>100%</b>

### 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 CourseSpaces.

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

Paper 1 (3%): 1½ pages, no introductory summary required.

Paper 2 (7%): three pages, including introduction and conclusions.

- **Critical Analysis Paper**

Five written pages (excluding reference section and figures), based on original paper of student’s choice, at least five original references; includes brief (~ ¾ page) introduction providing background information for the scientific topic and summarizing the original 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 on mechanisms and processing.**

### Assessment Policy

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.

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.*

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.

### **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 (<http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html>).

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.

No electronic devices will be permitted during the term test and final exam unless this rule is specifically suspended by the instructor.

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. You must be able to produce your UVic student identification card during 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. Under a new policy at UVic, instructors no longer submit letter grades for students.

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 ID#, please notify me 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

Central Pattern Generators (two to three guest lectures by Dr. Kerry Delaney)

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, available via WebView ([www.uvic.ca/reco](http://www.uvic.ca/reco)). It is your responsibility 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 7	First day of classes
Thursday, September 15	<b>First day of tutorials in Biology 448</b>
Tuesday, September 20	Last day for 100% reduction of tuition fees for standard first-term and full-year courses
Friday, September 23	Last day for adding classes
Thursday, September 29	<b>Tutorial paper 1 due</b>
Monday, October 10	Thanksgiving holiday
Tuesday, October 11	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 17	<b>Biology 448 Midterm Exam</b>
Thursday, October 27	<b>Tutorial paper 2 due</b>
Monday, October 31	<b>Topic due for Critical Analysis paper</b>
Monday, October 31	Last day for withdrawing from courses without penalty of failure
Thursday, November 3	<b>Marking Assignment due</b>
Wed-Fri, November 9-11	<b>Reading break, no classes and no tutorials</b>
Monday, November 14	<b>Critical Analysis paper due</b>
Friday, December 2	Last day of classes
Monday, December 5	First day of final exam period
Monday, December 19	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. We will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

The CES system is available at this link: [ces.uvic.ca/blue](http://ces.uvic.ca/blue).

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