Biology 367 Neurobiology: Molecules to Behaviour

Spring 2017

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- Office hours: Delaney: Drop in: 1:00 – 3:00 Monday and Thursday **or** by appointment.
- Course website: **web.uvic.ca/~kdelaney/B367**

Information in this outline is current as of Jan. 5, 2017 and subject to update. Changes to the outline will be advertised in lecture and available at **web.uvic.ca/~kdelaney/B367**

• **Course objective:** To acquire knowledge of the principles of function of nervous systems through an understanding of the cellular properties of neurons and their integration into neural circuits to produce behaviours and perceptions. Topics to be covered include:

- Structure of neurons and nervous tissue
- Electrical properties of neurons: passive and active
- Synaptic transmission between neurons: presynaptic and postsynaptic elements
- Synaptic plasticity: activity and neuromodulator dependent processes
- Learning and memory: plasticity at the cellular and systems level
- Sensory Systems: transduction of sensory signals, sensory system integration
- Motor Systems: motor control and motor system dysfunction (disease and injury)
- Nervous system development

• **Course Evaluation:**

Quiz	(10%)	(0.5 hrs) in class, tentantively Feb. 2
Midterm Exam	(35%)	(1.4 hrs) Feb. 23
Final Exam	(55%)	(3.0 hrs) Scheduled by U/G Records

Material tested in examinations will be derived directly **from material presented in class** and related material from sections of the course textbook –see below.

The EXAMS are not optional and all students are advised to write them. If a student does not attend the midterm or quiz they must contact Dr. Delaney as soon as possible – either within 24 hours or have a good reason for not contacting within 24 hours -- to determine if a make-up exam is possible. Make-up exams will be possible to sit, for documented medical reasons, until the results of the examination are returned to the class.

IF illness prevents writing of the FINAL examination students must inform the instructor AND apply for an Academic Concession to enable their N grade to be entered as DEF. Students should assume that DEF exams will be scheduled by Undergraduate Records during July.

• **Required text:** Purves et al, Neuroscience 5th ed. http://www.sinauer.com/detail.php?id=6977. Alternatively, he 4th ed. will be acceptable and will match 90% of the material (figures) that will be presented in class. Comparable material can be found in several substitute texts such as Principles of Neuroscience (Kandel et al.), Fundamental Neuroscience (Zigmond et al.) or Principles of Neurobiology (Quo)but it will be the responsibility of students using these texts as alternates to locate and identify the corresponding material in these texts.

• Grading:

Lettergrades will be assigned consistent with University Guidelines to the nearest decimal point as follows: (see http://web.uvic.ca/calendar2014-09/FACS/UnIn/UARe/Grad.html)

No supplemental exams or assignments will be offered and no E grades will be awarded (Biology Dept. Policy)

Students are to attend to ADD/DROP dates published in the Calendar and posted on the Undergraduate Records website. **Students must not assume they will be dropped automatically from any course they do not attend.** Students are responsible for checking their records and registration status.

Students requesting DEFerral of a final exam or Aegrotat grade must contact Undergraduate Records, Main Floor, University Centre, for a "Request for Academic Concession" form.