

BIOLOGY 4751 - NEUROBIOLOGY I
2014 Serial

1. Instructor. Dr. Robert J. Omeljaniuk, CB-4013, 343-8236
2. Intent. To provide senior undergraduate students with an opportunity to study selected aspects of neurobiology in a directed study approach.
3. Marking Scheme.
Submitted assignments. 10 X 10 marks = 100 final marks.
4. Execution.

a. General.

(1) Students will be assigned specific readings from the course textbook and will be prepared to discuss the subject matter and any difficulties they may have with it in group discussions on a weekly basis.

(2) Students' comprehension and mastery of the material will be evaluated on the basis of assignments submitted no later than one week following discussion of the subject matter. Answers to assigned questions may take any neatly presented format including text, figures and tables submitted as a hard copy; paragraph and short-essay answers supported by diagrams of the student's own design will be most appropriate. Page limits refer to narrative and not to figures or tables; assignment answers exceeding page limits will not be marked. In many cases, the preparation of an answer will require sourcing information from several sections of the textbook.

(3) All assignments must be credibly completed; **class attendance is mandatory**. In the event a student completes the course with a mark between 40 and 49 %, they will be eligible to apply for a Special Exam, which covers all course material, to be arranged with Lakehead University Scheduling. Students' term marks will be prorated to 50% of the course mark; the Special Exam will be valued at 50% of the final mark. **Assignments are due no later than 1200 hrs on the Friday of the week identified in the Tentative Outline below.**

b. Tentative Outline.

Serial	Chapter #	Chapter Title	Discussion Date (week of)	Assignment Deadline (week of)
1	04	The cells of the nervous system.	08 Sep	15 Sep
2	52	Patterning the nervous system.	15 Sep	22 Sep
3	53	Differentiation and survival of nerve cells.	22 Sep	29 Sep
4	54	The growth and guidance of axons.	29 Sep	06 Oct
5	55	The formation and elimination of synapses.	06 Oct	13 Oct
6	56	Experience and the refinement of synaptic connections.	13 Oct	20 Oct
7	58	Sexual differentiation of the nervous system.	20 Oct	27 Oct
8	59	The aging brain.	27 Oct	03 Nov
9	15	The organization of the central nervous system.	03 Nov	10 Nov
10	47	The autonomic motor system and the hypothalamus.	10 Nov	17 Nov

5. Textbook.

Principles of Neural Science (5th ed). E.R. Kandel, J.H. Schwartz, T.M. Jessell, S.A. Siegelbaum, and A.J. Hudspeth. McGraw-Hill. New York. 1709 pp. 2013.