

# **BIOD65 Pathologies of the Nervous System**

## **(Fall 2018) Course Syllabus**

**[Wed 1:00pm – 3:00pm, Room HW408]**

**Instructor: Dr. Ari Chow**

**(ari.chow@utoronto.ca)**

**TA: Nicholas Guilbeault**

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**This course offers an understanding and examination of the various selected pathologies affecting the nervous system, such as Alzheimer's and Parkinson's disease, multiple sclerosis, stroke and others. Students will be guided to examine the basic molecular basis and knowledge surrounding these pathologies, while having the opportunity to explore latest research advances targeting these diseases.**

**Course Aims:**

1. To understand pathologies, symptoms and treatments of various pathologies of the nervous system
2. Equip with the capability to search, read, understand, critique and present scientific research articles
3. Training in scientific writing and communication skills
4. To facilitate independent thinking and be inspired about science research

**Course Materials:**

1. There is no text book for this course. Course readings will be assigned throughout the course and uploaded onto the course page. Please read these before each class.
2. All students are required to set up Dropbox account for transferring of electronic materials (presentation powerpoint submission). Please see Dropbox setup instructions.
3. Assigned readings will be posted as PDF files on Blackboard.

**Course e-mail:** [ari.chow@utoronto.ca](mailto:ari.chow@utoronto.ca)

**Office hours:** Dr Chow will hold office hours on Wednesdays from 3-5pm in SW542 starting September 12.

## Course Outline Summary

Week	Date	Lecture Topic
1	Sep 5	Course Outline and Introduction to Neuroscience Research
2	Sep 12	How to find, present and critique research articles: - Information for student seminar presentations, evaluation of research articles and written assignment
3	Sep 19	Alzheimer's disease lecture (+ student seminars)
4	Sep 26	Stroke lecture (+ student seminars)
5	Oct 3	Parkinson's disease (+ student seminars)
6	Oct 10	Reading Week
7	Oct 17	Prion disease lecture (+ student seminars) (Written Assignment – Outline and draft submission for comments)
8	Oct 24	Huntington's disease lecture (+ student seminars)
9	Oct 31	Mid Term Test
10	Nov 7	ALS / motor neuron disease lecture (+ student seminars)
11	Nov 14	Multiple Sclerosis lecture (+ student seminars)
12	Nov 21	Developmental disorders and Neuroinfectious diseases lecture (+ student seminars)
13	Nov 28	Leukodystrophies and Myasthenia Gravis lecture (+ student seminars) (Written assignment due)

## Marking scheme

- Seminar presentation (20%)
- Seminar/class participation (5%)
- Midterm (20%) – 2 hours (In class)
- Written assignment – Draft Submission (5%)
- Written assignment – Final Submission (25%)
- Final exam (25%) - 2.5 hours

## Course Assignments

### **Seminar Presentation (20%) + Seminar/Class Participation (5%):**

From week 3 onwards, groups of 2-3 students (depending on class size) will present a 15 minute presentation on a research article about the latest breakthrough/advances of a chosen pathology of the nervous system covered in the course.

Students are required to submit a powerpoint version of their presentation through Dropbox. Please see Dropbox setup instructions.

All students should participate in these seminars from your fellow classmates. You are encouraged to ask them questions and be involved in class discussion. This would be greatly beneficial to help you sharpen your scientific thinking. A comment form will be provided for you to help evaluate your fellow classmates' talks. This will us all learn and improve together.

### **Written Assignment – Draft (5%) + Final (25%):**

All students will be working independently on their written assignment. Draft work which include outline and introduction work, with a hard copy submitted during the week 7 lecture. This will be useful in guiding you to complete the final assignment, with a hard copy submitted during the week 13 lecture. Details on the written Assignment will be discussed in class.

#### Referencing for written assignment:

Articles must be cited throughout the text (e.g. Author 1991; Author et al. 1995; Author and Author 1998). The reference list (bibliography) must be on a separate page and have the following format (e.g. Gamelin FX, Baquet G, Berthoin S, Thevenet D, Nourry C, Nottin S, Bosquet L (2009) Effect of high intensity intermittent training on heart rate variability in prepubescent children. Eur J Appl Physiol 105:731-738).

The written assignment should be times new roman, double-spaced and at least 8-10 pages in length (excluding the title page and bibliography).

Hard copies of assignments must be submitted in class. Hard copies must be single-sided with page numbers included on the bottom, stapled in the top left hand corner. Assignments must also be submitted electronically using Turnitin.com on Blackboard.

### **Midterm (20%):**

On Week 9, the midterm test will be held in class (2 hours). Test will cover materials surrounding lecture materials and evaluation of research article provided. Format will include multiple choices, short and essay type questions. Details will be discussed in class.

### **Final Exam (25%):**

The final exam will be cumulative, with similar format as the midterm test. Details will be discussed in class.

**Absence in exams and other assessments:** Failure to attend the final exam or midterm will result in no mark for that portion of the course. Failure to hand in assignments on time will also result in a zero for that given assignment, unless accompanied by a medical certificate. If assignments are to be submitted late, please contact Dr Chow within 24 hours after the deadline for that assignment to let her know of your illness. Late assignments will only be accepted if they are accompanied by a medical certificate. A make-up midterm exam will only be administered for students who present a medical certificate within two days of the test. Certificates will be verified. Students who miss the final exam must petition.

## **Other Important Information**

**Academic Integrity:** Please refer to <http://www.governingcouncil.utoronto.ca/policies/behaveac> for the University of Toronto's Code of Behaviour on Academic Matters. Potential offences include, but are not limited to:

In Tests and Exams: to use or possess an unauthorized aid or to look at the answers of another student's exam; misrepresentation of identity.

Medical Notes and other Official Documentation: Falsification or alteration of documentation required by the University.

**AccessAbility Information:** Please let me and/or AccessAbility services know if you require any accommodations to ensure that you achieve your learning goals in this course. AccessAbility services is located in SW302 (tel: 416-287-7560; email: ability@utsc.utoronto.ca), where you can arrange appointments to assess and accommodate your specific needs. Enquiries are confidential.

**Turnitin.com:** Normally, students will be required to submit their assignments using Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their assignments to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the website. Turnitin.com is most effective when it is used by all students in a particular course; however, if and when students object to its use on principle, a reasonable offline alternative must be offered. There is a wide variety of non-electronic methods that can be used to deter and detect plagiarism; for example, to require that all rough work is handed in with the paper or that the student include an annotated bibliography of the paper. Instructors may wish to consult with the Centre for Teaching and Learning Support & Innovation when establishing these alternatives.