

## Faculty of Health School of Kinesiology and Health Science

**Course:** HH/AS/SC/KINE 3650 3.0 Functional Neuroanatomy

**Course Webpage:** Moodle site

**Term:** *Fall 2018*

**Prerequisite:** HH/AS/SC/KINE 2031 3.0 Human Anatomy

### **Course Instructors**

**Course Director:** *Heather Jordan, PhD*

**Email:** [hjordan@yorku.ca](mailto:hjordan@yorku.ca)

**Office Hours:** After class and by appointment in SC322

### **Email Etiquette:**

- For all email correspondence please use KINE 3650 in the subject header. Please sign all letters with your full name and/or your student number. Email correspondence will not be held with anonymous people.
- We will respond to email only if it can be answered in 10 words or less.
- For complex issues, please use email to arrange for a time where we can meet (preferably during office hours).
- ***Email will not be answered on the weekends*** but shortly afterwards.
- ***You may leave a voicemail in the case of extreme emergencies.***

### **Time and Location**

<b>Lecture:</b>	Tues. 1pm – 2:30pm	Stedman Lecture Hall C
	Thurs. 1pm – 2:30pm	Stedman Lecture Hall C

### **Expanded Course Description**

This course introduces the student to the anatomy of the central nervous system. The course covers the various structures in the central nervous system and discusses clinical correlates for each structure. Motor, sensory, learning, and memory systems are covered, as are reflexes/balance and nourishment of the CNS.

The following is a sample of the structures covered:

- Spinal Cord
- Medulla
- Pons
- Midbrain
- Basal ganglia
- Cerebellum
- Cerebral cortex
- Hypothalamus
- Limbic system
- Cerebral vasculature
- Cerebral spinal fluid and the meninges

The course covers the material both textually and pictorially with clinical photographs and MRI images.

### **Course Organization**

The content of the course will be delivered twice a week in lecture format. Students are strongly encouraged to attend regularly and read the relevant textbook chapters prior to the weekly lecture.

### **Course Learning Objectives**

The student will both understand the function of and be able to recognize neuroanatomical structures. This course serves as an anatomical introduction to cognitive neuroscience and the workings of the central nervous system.

### **Course Text / Readings**

The following text is the assigned book for the course:

Afifi, A.K. & Bergman, R.A. (2005). **Functional Neuroanatomy, 2nd Edition: Text and Atlas**. McGraw-Hill.

### **Tentative Class Schedule**

- Last date to enroll without permission of course instructor: Sept. 18
- Last date to enroll with permission of course instructor: Oct. 2
- Last date to drop courses without receiving a grade: Nov. 9

<b>Date</b>	<b>Topic(s)</b>	<b>Reading</b>
Sep 6	Introduction	
Sep 11	Neurohistology	Chapter 1
Sep 13	Gross Topography	Chapter 2
Sep 18	Spinal Cord	Chapters 3-4
Sep 20	Medulla	Chapters 5-6
Sep 25	Pons	Chapters 7-8
Sep 27	Midbrain	Chapters 9-10
<b>Oct 2</b>	<b>Class Test 1</b>	<b>Introduction - Midbrain</b>
Oct 4	Diencephalon	Chapters 11-12
Oct 16	Basal Ganglia	Chapters 13-14
Oct 18	Cerebellum	Chapters 15-16
Oct 23	Cerebral Cortex: Cortical Areas	Chapters 17-18
Oct 25	Hypothalamus	Chapters 19-20
Oct 30	Limbic System	Chapters 21-22
Nov 1	Q&A	
<b>Nov 6</b>	<b>Class Test 2</b>	<b>Diencephalon – Limbic System</b>
Nov 8	Special Senses	Chapters 23-24
Nov 13	Cerebral Vasculature	Chapters 27-28
Nov 15	Cerebrospinal Fluid	Chapters 29-30
Nov 20	Reticular Formation	Chapters 32-33
Nov 22	Major Sensory and Motor Pathways	Chapter 31
Nov 27	Neurological Exam	Chapter 35
Nov 29	Catch-up	
Dec 2	Q&A	
<b>TBA (Finals Period)</b>	<b>Final Exam</b>	<b>Everything!</b>

## **Evaluation**

**Attendance:** It is your responsibility to attend lectures. You will be tested on all materials that are covered in both lectures and the text. Some material in the lecture is not in the text.

### **Final Grade:**

*The final grade for the course\* will be based on the following items weighted as indicated:*

- Class Test 1: 25%
- Class Test 2: 25%
- Final Examination: 50%

\* Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles

There will be two class tests and one final examination. Questions will be drawn from weekly lecture material and the relevant textbook chapters, with the greatest focus on content presented in class and overlapping with the readings. The format of the questions will be multiple choice, fill in the blank, matching, short answer, label the diagrams, and essays. The class tests will not be cumulative. The final examination will cover material from the entire course.

An unofficial list of grades will be posted on the course website as soon as they become available. Please check the course website rather than persistently contacting the teaching team to find out if they are available.

**Grading:** The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.) (For a full description, see the York University Undergraduate Calendar:

[http://calendars.registrar.yorku.ca/pdfs/ug2004cal/calug04\\_5\\_acadinfo.pdf](http://calendars.registrar.yorku.ca/pdfs/ug2004cal/calug04_5_acadinfo.pdf))

An appeal against a grade assigned to an exam must be made in writing to the course director/instructor. The result of an appeal may cause the grade to increase, decrease or remain the same.

**Missed Tests:** Only students with a legitimate reason for missing a class test, which is confirmed by official documentation\*, may request accommodation from the Course Instructor. Written documentation should be submitted to the Course Director at the next meeting of the class. In the event that a class test is missed, the percentage allocated to the missed exam will be added to the final exam. If a student misses an exam with no legitimate excuse, the student will receive a grade of zero for the missed test. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

In the case of a sudden emergency, contact me by e-mail as soon as possible.

\*Official Documentation.

Documentation must be provided by a registered clinical psychologist, psychiatrist, or medical doctor indicating that you were indeed unable to attend on the specific date of the examination because of your specific problem.

**Accommodations:** York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder.

If any student does require accommodations to access this course, including taking exams in the alternate exams centre, they are asked to contact the course director ([HJordan@yorku.ca](mailto:HJordan@yorku.ca)) and arrange an appointment to meet briefly to discuss any necessary arrangements. Students will need to produce a letter of accommodation from Student Accessibility Services.

## **IMPORTANT COURSE INFORMATION FOR STUDENTS**

Please refrain from talking to others or making audible comments during class lectures or while another student is responding. If it is necessary to make noise, please leave the room first. Please place your cell phone and other electronic equipment in silent mode.

All participants in the course, teaching staff and students, will conduct themselves in a thoughtful and sensitive manner. Correct scientific terminology will be the lingua franca in the classroom.

This is an undergraduate course, not the culmination of a clinical neurology degree. Even though we will discuss many issues involving the relationship between the brain and behaviour, you will not be in a position to "diagnose" the problems of another person (including **yourself**). If the material in this course does evoke uneasiness for you, perhaps because you or a family member has gone through a related experience, please feel free to contact the course director confidentially via phone or e-mail or access the resources of Student Counselling and Development (N110 Bennett Centre for Student Services; 416-736-5297).

**Cheating is unacceptable** on this course and any student who participates in this activity can expect to be referred to the appropriate disciplinary authority for their first offence. If you are unclear what does and does not constitute cheating please refer to the Academic Integrity web site (<http://www.yorku.ca/academicintegrity>) and read the section 'For Students'. If you have not completed the Academic Integrity Tutorial which is hosted there, then I would urge you to do so.

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents): [http://www.yorku.ca/secretariat/senate\\_cte\\_main\\_pages/ccas.htm](http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm)

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation