

# NEURAL BASIS OF BEHAVIOUR

## PSYC 3250 3.0 Section A

Fall Term 2016-17  
ROOM CLH G, Wednesday 11:30-14:30  
Faculty of Health, York University

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### Course Director

Joseph F.X. DeSouza, PhD Neuroscience  
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Robert McKnight, MA Cand. III

### E-mail etiquette

We will respond to e-mails during  
Monday to Friday within 99 hrs.  
During the weekend e-mails will not  
be read.

**Faculty Secretary: Sabrina Iantorno 282 BSB, 416.736.2100 x66268**

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### Course Description

This course presents the fundamentals of the neuroscience of behaviour. Special importance is placed on the information-processing properties of the nervous system in order to provide a uniform framework for the understanding of such topics as sensory perception, attention, movement, emotion and language with experimental examples from the lab and clinical studies\research illustrating the effects of impaired brain function. How does plasticity occur in the brain? Can music and dance help brain function? What is neurorehabilitation?

### Learning Objectives

1. This course presents the fundamentals of the physiology of behaviour. At conclusion of the course you will understand the brain's input and output.
2. Understanding how we process sensory information from the world
3. Understand how motor functions are accomplished in our brain
4. The effect of emotion on neural processing
5. Get exposure to topics within Society for Neuroscience ([www.sfn.org](http://www.sfn.org))

### Prerequisites

1. AK/AS/HH/SC/PSYC1010 6.0 or AK/PSYC2410 6.0 with a **minimum grade of C**.
2. AK/AS/HH/SC/PSYC 2240 3.0 or AK/PSYC 3145 3.0. [i.e. Biological Basis of Behaviour].

### Course Format

Lectures/discussion/movies with textbook reading assignments and use of podcasts and internet resources.

### Readings

The course will primarily use Neil R. Carlson's Physiology of Behavior (12th Edition, Allyn & Bacon). The text will be supplemented with internet resources, movies and lectures. I highly recommend that you make use of the

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online resources.

### Final mark will be based on:

**Quizzes / Writing a News Report** – During *some* classes there will be a 5-10 minute quiz. If you are late for class there are no make up quizzes. If you miss a quiz there are no makeup quizzes. The quiz will be on a topic from the current lecture and/or previous material you should know and understand. Any missed quiz you WILL need to give a doctor's note to my faculty secretary (see above), otherwise you receive 0 for that quiz. 15%

e.g. Hypothetical student's quiz calculation, if you missed 3 of 5 quizzes during the term. You only dropped 1 doctor's note to our Faculty Secretary (rm282 BSB) within 8 days of the missed quiz. Thus, one zero mark is replaced with a note and you completed the 2 quizzes with 80% and 80% we will calculate your mark as follows (0+0+note+80+80) thus you have 4 marks = = 40.0%.

**Or** your marks on the quiz could be ignored and you can replace the mark with writing a 1000 word News Report Article like in the Toronto Star/Globe and Mail on the last issue of Journal of Neuroscience (<http://www.jneurosci.org/>) or Brain (<http://brain.oxfordjournals.org/>) that MUST be approved by Dr. DeSouza before you write it. News Report are due anytime before December 15<sup>th</sup>

**DO NOT HAND ME A DOCTORS NOTE AFTER CLASS – I WILL LOSE IT. DO NOT EMAIL ME A NOTE SINCE I WILL DELETE IT. FOLLOW THE ABOVE INSTRUCTIONS.**

**Midterm exam 1** in class [**WEEK 6**] (pgs 7-8 on neglect, Chpts 2,3,4,5). 2-hr exam followed by lecture ~70% Multiple choice and ~30% short answer (space of ~5 lines). *There will be no makeup exams for Midterm exam 1. If you miss a midterm your final exam will be worth 30% more (no exceptions).* **If you miss the exam no doctors note is needed** 35%

**Midterm exam 2** in class [**WEEK 9**](Chpts 6,7) 2-hr exam followed by lecture ~70% Multiple choice and ~30% short answer (space of 5 lines). *There will be no makeup exams for Midterm exam 2. If you miss the midterm your final exam will be worth 30% more (no exceptions).* **If you miss the exam no doctors note is needed** 25%

**Last Exam** in class [**WEEK 12**] (pgs 7-8 on neglect, Chpts 2,3,4,5,6,7,8,11,14) 3-hr exam on all material in all lectures and course readings). Please note: I will probably not answer e-mails regarding class 20%

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material in the last 5 days before the exam so please prepare them ahead of time in my office hours before/after class. If you miss the last exam yes you need a doctors note this time. Your makeup exam will probably have no multiple choice questions and will be all essay and/or short answer questions.

**Participation** in class and group quiz discussion.

5%

### Academic Integrity

Please go to the website and complete the tutorial at York University (<http://www.yorku.ca/academicintegrity>), to read the section 'For Students,' and to complete the Academic Integrity Tutorial: ([http://www.yorku.ca/tutorial/academic\\_integrity/](http://www.yorku.ca/tutorial/academic_integrity/)). Please view the university policy on plagiarism and academic dishonesty at [http://www.yorku.ca/secretariat/policies/document.php?document=69#\\_Toc89156096](http://www.yorku.ca/secretariat/policies/document.php?document=69#_Toc89156096)

### Late Work/Missed Tests or Exams

Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (Attending Physician Statement which can be found at: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>) may request accommodation from the Course Instructor. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

### Add/Drop Deadlines

For a list of all important dates please refer to: [Important Dates](#)

<b>Important dates</b>	<b>Fall (F)</b>	<b>Year (Y)</b>	<b>Winter (W)</b>
Last date to add a course <b>without</b> permission of instructor (also see Financial Deadlines)	Sept. 21	Sept. 21	Jan. 18
Last date to add a course <b>with permission</b> of instructor (also see Financial Deadlines)	Oct. 5	Oct. 19	Feb. 1
Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 11	Feb. 10	March 10
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript – see note below)	Nov. 12 - Dec. 5	Feb. 11 - Apr. 5	March 11 - Apr. 5

### Information on Plagiarism Detection

Description of software used to detect plagiarism.

### Electronic Device Policy

instructor's policy on use of electronic devices in class

### Attendance Policy

Instructor's policy on attendance.

### Academic Integrity for Students

York university takes academic integrity very seriously, please visit [an overview of Academic Integrity at York University](#) from the Office of the Vice-President Academic.

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The following links will assist you in gaining a better understanding of academic integrity and point you to resources at York that can help you improve your writing and research skills:

- [Information about the Senate Policy on Academic Honesty](#)
- [Online Tutorial on Academic Integrity](#)
- [Information for Students on Text-Matching Software: Turnitin.com](#)
- [Beware! Says who? A pamphlet on how to avoid plagiarism](#)
- [Resources for students to help improve their writing and research skill](#)

### Test Banks:

The use of test banks is not permitted in this course and may be considered a potential breach of academic honesty. This includes but is not limited to; buying or selling test banks.

### Electronic Devices During a Test/Examination:

Electronic mobile devices of any kind are not allowed during a test or examination. Students are required to turn off and secure any electronic mobile device in their bag which is to be placed under the chair while a test/exam is in progress. Any student observed with an electronic device during a test/exam may be reported to the Undergraduate Office for a potential breach of Academic Honesty.

### Academic Accommodation for Students with Disabilities:

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The [York University Accessibility Hub](#) is your online stop for accessibility on campus. The [Accessibility Hub](#) provides tools, assistance and resources. **Policy Statement**

**Policy:** 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.

For Further Information please refer to: [York university academic accommodation for students with disabilities policy](#)

### Course Schedule:

See moodle for updated schedule.

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Dr. Joseph DeSouza, [neural@yorku.ca](mailto:neural@yorku.ca)

<u>Date</u>	<u>Topic</u>	<u>Reading</u>
Week 1	Introductions Neurons+	Chpt. 1 pgs 7-8 on neglect Chpt. 2
Week 2	Neuroanatomy	Chpt. 3
Week 3	Neuroanatomy review Psychopharmacology	Chpt. 3 Chpt. 4
Week 4	Psychopharmacology con't	Chpt. 4
Week 5	Research Methods	Chpt. 5
Week 6	<b>2hr Term Test –Oct 19th</b> Visual/ demos	<b>Chpts 1</b> (pgs 7-8 on neglect), <b>2,3,4,5</b>
Week 7	Visual System Perception and Action	Chpt. 6
Week 8	Auditory, Somatosensory, Vestibular and the rest of the senses	Chpt. 7
Week 9	<b>2hr Term Test</b>  Motor control lecture	<b>Chpts 6,7</b>  Chpt. 8
Week 10	Motor control (con't)	Chpt. 8
Week 11	Emotion, Communication Disorders and everything else	Chpt. 11, 14
Week 12	<b>Last exam in class</b> <b>Nov 30th</b>	<b>Chpts. 1</b> pgs 7-8 on neglect, <b>2,3,4,5,6,7,8,11</b> <b>&amp; 14</b>