



## PSY493: Cognitive Neuroscience

Thursdays 6-9pm, SS

### Contact Information

<b>Instructor: Hans Melo</b> hans.melo@mail.utoronto.ca	<b>Teaching Assistant: Alex Barnett</b> Alexander.barnett@mail.utoronto.ca
<b>Office Hours:</b> Office: SS 62 Office Hours: By appointment.	<b>Office Hours:</b> Sidney Smith, Room 623A Office Hours: By appointment

### Course Description, Goals, and Prerequisites

This is a survey course in cognitive neuroscience. The course focuses on the neural substrates of mental processes including perception, attention, memory, language, decision-making, emotion and social cognition. By the end of the course students will have a basic understanding of the neural processes that support human cognition, research methodology, as well as on-going debates within the field.

**Course Prerequisites:** PSY201H1 or equivalent, PSY260H1 / PSY270H1 / PSY290H1 / HMB200H1 / HMB204H1 / NRS201H1. It is your responsibility to ensure that you have met *all* prerequisites listed in the Psychology section of the A&S Calendar for this course. Visiting students from other universities should have the equivalent prerequisites from their home institutions. If you lack any prerequisites you will be removed. No waivers will be granted.

### Reading Material/Textbook(s)

**Required text:**

Banich, M. T., & Compton, R. J. (2011). Cognitive Neuroscience (3rd ed.): Wadsworth.

\*Supplementary readings will be assigned for some lectures as specified below. Additional readings may be assigned at a later time.

### Course Evaluation/Marking Scheme

Assignment	Weight	Date
Midterm 1	25%	Feb. 25
Midterm 2	25%	Apr. 7
Paper Topic	10%	Mar. 17
Paper	35%	Mar. 31
Participation	5%	***

**Midterms**

The test material will come primarily from the lectures, but will also include material from the assigned chapters and readings. Students are responsible for attending lectures and reading the assigned materials, as lectures will not cover all material contained in the readings (and vice versa).

<b>Paper Topic</b>	Students are responsible for providing a topic for their paper two weeks before the final paper deadline. This is to allow students to plan their paper ahead and make sure their topic is suitable. TA's will provide feedback. Paper topics will be submitted through Blackboard no later than <b>11:59pm on Nov 17</b> .
<b>Paper</b>	Students will write a ~2000-word paper and follow APA style formatting. Students can choose between 1) a <b>debate paper</b> in which they will discuss a current debate in cognitive neuroscience, and 2) a <b>research proposal</b> in which students will propose a new <u>original</u> study to address a current gap in the literature. Papers will be submitted via blackboard by <b>11:59pm on Dec. 4</b> .
<b>Participation</b>	Unannounced quizzes will be given during some lectures. Students are responsible for coming to each class, review the material, and complete the in-class quizzes.

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### Course Webpage/Blackboard

The course Blackboard website will be your one-stop resource for all course documents, announcements, and assignment submissions. Lecture slides will be posted on Blackboard the night before class at the latest under "Course Documents". **You are responsible for announcements posted to Blackboard, so check this page regularly for updates.**

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### Course Policies

<b>Late Submission</b>	Assignments will be penalized 10% for each day after the deadline, to a maximum of 4 days (40%) after which papers will no longer be accepted. Extensions will only be granted in exceptional circumstances (i.e. illness or family emergency) with valid documentation.
<b>Missed Exams</b>	Missed or unexcused exams will be treated as zeros unless valid documentation is provided in which case a make-up exam will be arranged – please email TA. <i>The Verification of Student Illness or Injury form, now the new official University of Toronto form for all students who are requesting special academic consideration based on illness or injury, must be submitted to the course TA <b>within one week</b> of missing the test. Medical documentation must show that the physician was consulted <b>within one the day of the missed term test.</b></i>
<b>Appeals</b>	Students are welcome to review their assignments with the course TA. Please note that if you are not satisfied with the way your assignment/midterm exams were graded you should first contact the course TA and discuss with him/her your concern. You can request a re-grade but note that this will require an entire re-grade of the assignment and not only the parts where you think you were marked unfairly. As such, your grade could increase, decrease, or remain the same.

**Academic Integrity and Plagiarism**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters ([www.governingcouncil.utoronto.ca/policies/behaveac.htm](http://www.governingcouncil.utoronto.ca/policies/behaveac.htm)) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see [www.utoronto.ca/academicintegrity/resourcesforstudents.html](http://www.utoronto.ca/academicintegrity/resourcesforstudents.html)).

**Accessibility Needs**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or Accessibility Services at (416) 978 8060; [accessibility.utoronto.ca](http://accessibility.utoronto.ca).

**Course Outline/Schedule**

Lecture	Date	Topic	Readings
1	14-Jan	Neurophysiology	Ch.1, 2
2	21-Jan	Neuroanatomy and Methods	Ch. 1, 3
3	28-Jan	Vision and Space*	Ch. 6, 7, 8; Moser et al. 2008; Haftning et al. 2005
4	04-Feb	Audition and Time	Ch. 6
5	11-Feb	Motor Control	Ch. 5
-	18-Feb	NO CLASS	
6	25-Feb	<b>Midterm 1</b>	
7	03-Mar	Attention and Executive Function	Ch. 11, 12
8	10-Mar	Memory	Ch. 10; Nader & Hardt. 2009 Nader et al. 2000
9	17-Mar	Language	Ch. 9
10	24-Mar	Decision-Making	Rangel et al. 2008; Hare et al. 2008
11	31-Mar	Emotion and the Social Brain	Ch. 13
12	07-Apr	<b>Midterm 2</b>	

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## Academic Resources

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**Writing:** As a student at the University of Toronto, you are expected to write well. The university provides its students with a number of resources to help you achieve this. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>.

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### Other Resources

Student Life Programs and Services (<http://www.studentlife.utoronto.ca/>)

Academic Success Services (<http://www.asc.utoronto.ca/>)

Counselling and Psychological Services (<http://www.caps.utoronto.ca/main.htm>)