

## PSYB57- Fall 2015: Memory and Cognition

*Course Info:* Room AA112 on Wednesday @ 9:00am – 12:00pm    *Website:* BlackBoard

### Contact Information for Instructor:

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### Goals of the course:

This course is concerned with the study of the human mind, with a focus on the methods used by cognitive psychologists to understand how the brain gives rise to the mind. This is an interdisciplinary area that represents an attempt by cognitive psychologists, neuroscientists, computer scientists, linguists, and philosophers to discover how mental processes are implemented in the brain. The approach focuses on human cognitive processes, and relies heavily on the methods and findings of neuroscience, in that the brain is used as a constraint on how models of the mind must be designed. Our focus will be on the contributions of cognitive psychology, but we will sample methods and theories from the other related fields as appropriate. This kind of research receives extensive coverage in the media (e.g., brain scanning of cognitive function, the implications of talking/texting while driving, financial decision making, etc.), and this course should provide you with a deeper understanding of what you might read and hear about outside of the classroom.

The topics covered are the major ones in higher-level cognition, and include: concepts and mental representations, object recognition, long-term memory, working memory, attention, control processes, emotion, decision making, reasoning, problem solving, and language processing. To understand the cognitive approach to these topics, students will be introduced to the behavioral reaction time methods of cognitive psychology, to some elementary neuroanatomy, to the logic of studies with neurological patients, to functional neuroimaging techniques such as functional Magnetic Resonance Imaging (fMRI), and to the basics of computational modeling, with a focus on connectionist modeling.

### Required Reading:

- Cognition 5e – by Daniel Smilek, Scott Sinnett, Alan Kingstone (Oxford Publishing)
- Discovery Labs for Cognition

*If you have purchased a used copy of the text, or you just want an ebook version of the text, you can purchase a stand-alone license for the labs.*

### Methods of Evaluation:

Online written activities (using peer feedback)	14%
Online Experiments (Discovery Labs participation grade)	7%
Quizzes	14%
Midterm Exam	30%
Final Exam	35%

**Online Written Activity & Peer Feedback (through peerScholar) (7% x 2 = 14%)**

*Activity:*

Two times throughout the semester you will be asked to do an online activity where you will answer a question related to the course material.

*Peer Feedback:*

You will then read & give feedback to 3 of your peers' responses.

**Online Demo Experiments (7%)**

You will be required to participate in a number of online experiments using the 'Discovery Labs' website. This 7% is earned by just participating in the demo experiments *on time*.

**Chapter Quizzes and mTuner Quizzes (14%)**

Quizzes will happen throughout the term and will be worth 14% overall; as a bonus, your lowest two quiz grades will be dropped!

**Midterm and Final Exam (30% and 35% respectively)**

The midterm and final exam will consist of multiple-choice questions as well as short answer questions.

The content will be based on both material from the textbook AND material from the lectures.

Although the final exam is not cumulative, there will be some relevant material from the first half of the course that is discussed in the 2<sup>nd</sup> half as well (so that would be fair game for the exam).

**Tentative Course Outline:**

<b>Week</b>	
Week 1 (Sept 9th)	Introduction
(October 13th – 17th)	Reading Week
Week 12 (Dec 2nd)	Last Class
TBA	Midterm & Final Exam dates will be announced on BlackBoard

<b>Content</b>	<b>Imagery</b>
What is Cognition & the Science of The Mind	Concepts
Cognitive Neuroscience	Language
Perception	Problem Solving
The Varieties of Attention	Reasoning, Judgment, and Choice
Memory Traces and Memory Schemas	Intelligence and Creativity
Memory Systems	Personal Cognition

## **Academic Writing**

Writing assignments make-up a large component of this course. If you are not comfortable with your writing abilities, or would like a quick refresher on specific topics, then be sure to make use of the following two excellent resources:

**UTSC Writing Centre:** AC 210, <http://ctl.utsc.utoronto.ca/twc>

-- a great source of help, including scheduled appointments with a live expert

**U of T Advice on Academic Writing:** <http://www.writing.utoronto.ca/advice>

-- a fantastic source of materials on writing.

## **Policies on Missed Assignments:**

Given you will be doing three assignments online - and only your top two assignment grades will be used towards your final mark - I expect all students should be able to complete at least two assignments without any issue. In the case of the peer feedback and other online components, you do not have to be in class (i.e., you can do it from home online) thereby allowing you to stay caught up with the class even if you are ill.

## **Deferred Exams:**

For final exams, UTSC sets the policies (not the course instructor). You are allowed to defer your exam if you cannot write it - but you must follow the university's procedures. Please see this link for information on how to defer a final exam:

[http://www.utsc.utoronto.ca/~registrar/current\\_students/deferred\\_exams](http://www.utsc.utoronto.ca/~registrar/current_students/deferred_exams)

## **Policies on Academic Integrity**

Please review the UTSC Code on Academic Behaviour:

[http://www.utsc.utoronto.ca/courses/calendar/University\\_of\\_Toronto\\_Policies.html#Code\\_of\\_Behaviour\\_on\\_Academic\\_Matters](http://www.utsc.utoronto.ca/courses/calendar/University_of_Toronto_Policies.html#Code_of_Behaviour_on_Academic_Matters)

## **AccessAbility**

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 the AccessAbility Services Office as soon as possible

(<http://www.utsc.utoronto.ca/~ability/>). The UTSC AccessAbility Services are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

*The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances.*