PSYB57-S13: Memory and Cognition

Class Meeting Time: Monday 12:00PM – 3:00PM
Classroom: AA112
Course website: BlackBoard

Contact Information for Instructor:

Instructor: Dwayne E. Paré
Office: S-563
Office Phone: (416) 287-7549
Email: dpare@psychexperiments.com

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 inter-disciplinary 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 (5th edition) – Daniel Reisberg
- Zaps – The Norton Psychology Labs
  If you have purchased a used copy of the text, you can go to http://www.wwnorton.com/college/psych/zaps/ and order a stand-alone license.

Methods of Evaluation:

Online written activities (using peer feedback)	12%
Online Experiments (Zaps! participation grade)	8%
Chapter Quizzes	10%
Midterm Exam	35%
Final Exam	35%

Online Written Activity & Peer Feedback (through peerScholar) (6% x 2 = 12%)

Activity (4%):

Three times throughout the semester you will be asked to do an online activity where you will answer a question related to the course material (in NO more than 3 paragraphs).

Scale:

0= did not answer the question

- provided an answer that involved little to NO creative and/or critical thought

4= provided an answer that involved creative and/or critical thought

Peer Feedback (2%):

You will then read & give feedback to 3 of your peers' responses (feedback should be NO longer than 1 or 2 paragraphs).

Scale:

0= provided no feedback

1= provided brief feedback (e.g., your idea was great – A+) OR semi-informative – but obvious - feedback (e.g., you spelt 'memory' wrong)

2= provided informative and detailed feedback

* You will get a grade out of 6% for each of these three assignments; however, I will drop the lowest of your 3 marks.

Online Demo Experiments (8%)

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

Chapter Quizzes (10%)

Chapter quizzes will take place on a weekly basis and will be worth 10% overall; however, only your best 5 marks will be counted towards this grade.

Midterm and Final Exam (35% each)

The midterm and final exam will consist of both multiple-choice questions as well as short answer questions. The content will be based on the material we have discussed throughout the term, and although the majority of the final exam material will come from the 2nd half of the course, there will be some relevant material from the first half as well (this will be discussed before the exam).

Tentative Course Outline:

Week	*Topic*	*Chapters*
January 7	Introductions	-
January 14	The Science of The Mind	1
January 21	The Neural Basis for Cognition	2
January 28	Recognizing Objects	3
February 4	Paying Attention	4
February 11	The Acquisition of Memories and the Working-Memory System	5
February 18	Family Day – NO Class	-
TBA	Midterm Exam	-
March 4	Interconnections Between Acquisition and Retrieval	6
March 11	Remembering Complex Events	7
March 18	Concepts and Generic Knowledge	8
March 25	Language	9
April 1	Visual Knowledge	10
TBA	Final Exam	-

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

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

Access*Ability*
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 Access*Ability* Services Office as soon as possible (http://www.utsc.utoronto.ca/~ability/). The UTSC Access*Ability* Services are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or 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.