

# Psychology 261 Physiological Psychology Fall 2008



Class Time: Tuesdays & Thursdays 1pm-2:20pm Location: B1 271

Instructor: Dr. Myra Fernandes mafernan@uwaterloo.ca

Office Hours: Monday 11am-noon Office: PAS 4054

**Teaching Assistants:** 

Lisa Meschino | Imeschino@gmail.com

Office Hours: Tuesday noon-1pm Office: PAS 2257

Kevin Barton <u>krbarton@uwaterloo.ca</u>

Office Hours: Thursday 3-4pm Office: PAS 2257

# Required Course Text

Carlson, N. (2007). Physiology of Behaviour, 9th Edition, Boston, MA: Allyn & Bacon

#### **Course Description**

Physiological psychology examines how biology influences our behaviours. The goal of this course is to introduce you to the fundamental physiological processes underlying brain – behaviour relationships in humans. The course will cover cellular, neurochemical and neural network levels of analysis for human behaviour. Topics covered include: neural communication, neuroanatomy, neurodevelopment, methods in neuroscience, sensory processing, vision, memory, emotion, and neurological disorders. Though we will only have a chance to touch on a few aspects of this vast research domain, the material will hopefully give you new insights into how behaviours are influenced by our physiology.

Because of the large number of students in the class, I will spend most of class time lecturing. However, I do encourage discussion and questions to clarify material. I think the class will be much better if you participate by asking, and answering, questions! It is also extremely important that you read the assigned text material as well as attend lectures! Though there will be overlap between text and lectures, there will be material in the text that will not be covered in lectures and likewise, there will be some material in the lectures that is not in the text. Regular attendance is strongly encouraged.

#### Overview of Evaluation:

Mid-term Test #1	Thurs. Oct. 2 <sup>nd</sup>	30%	
Mid-term Test #2	Thurs. Oct. 30 <sup>th</sup>	30%	
Mid-term Test #3	Thurs. Nov. 27 <sup>th</sup>	24%	
Quizzes	2 X 6% =	12%	
Participation in Research Experiments (or Assignments) 4 X 1% =			

#### **Details on each Evaluation**

#### Mid-term Tests

#### Each test:

- is non-cumulative
- is 75 minutes (1 hour 15 min.) in length
- will be based on the material presented in the text and in lectures
- will be composed mostly of multiple choice, with some short answer questions
- will be written either in the regular classroom (B1 271), or in rooms to be determined, to
  ensure adequate space for writing (information on test location will be posted on UWACE,
  and during lectures)

## If you miss a test:

It is the student's responsibility to provide, **within 1 week of the missed test,** acceptable **documentation** to support a medical, compassionate, or religious claim for missing a test. Otherwise a grade of zero may be assigned for the missed test.

If you feel that you have a medical or personal problem that is interfering with your work, you should contact your Instructor and the *Academic Counseling Office* as soon as possible. Problems may then be documented and possible arrangements to assist you can be discussed at the time of occurrence rather than on a retroactive basis. In general, retroactive requests for grade revisions on medical or compassionate grounds will not be considered. For example, in the case of illness, the student must provide an official illness certificate on appropriate letterhead from their physician, which states that, due to medical reasons, it was impossible for the student to write the exam at the scheduled time. A note on a prescription pad is not an acceptable medical certificate.

Once Dr. Fernandes has received appropriate documentation for missing a test, a make-up test, covering that material, will be scheduled for a time that is mutually convenient for Dr. Fernandes, the TAs, and the student.

#### Quizzes

#### Each quiz:

- will consist of fill in the blanks and definitions taken directly from the Course Animations of the text CD-ROM (see below)
- is based on material covered in the Course Animations of the CD-ROM
- is 15 minutes in length
- will take place in the regular classroom, B1 271

## If you miss a quiz:

It is the student's responsibility to provide, in a timely manner, acceptable documentation to support a medical, compassionate, or religious claim for missing a quiz. Otherwise a grade of zero may be assigned for the missed quiz.

NO MAKE-UP QUIZZES will be given. But, if you provide appropriate documentation for missing a quiz, within 1 week of the missed quiz, a make-up assignment will be given.

## **Participation:**

In order to familiarize you with different types of research in psychology, you will have the opportunity to participant in actual experiments being conducted at the University of Waterloo. A representative from the *Psychology Research Experiences Group* will visit the class in the 1<sup>st</sup> week of classes, and will inform you of the procedure for signing up for research experiments (also see the file on Research Participation posted on UW-ACE). You will be given a grade of 1% for each 1 hour of participation in an experiment, up to a maximum of 4%. **The last day to participate is December 1**<sup>st</sup>.

## **Assignments:**

If you do not wish to participate in experiments, or cannot find an available experiment, you can complete Assignments instead. Each Assignment is to write a 1 ½ - 2 page (single-spaced) summary, in your own words, of a research article on any topic in Physiological Psychology, from an academic Journal. See **the file on Research Participation posted on UW-ACE for additional details**. You will be given a grade of 1% for each Assignment, up to a maximum of 4%. All written assignments are **due no later than November 24**<sup>th</sup>. Please **email all assignments** to your TA, Lisa Meschino lmeschino@gmail.com.

NOTE: you can combine Participation and Assignments, or choose to do one or the other; You will be given a MAXIMUM of 4% for this section of the Evaluation.

# **Course Animations and Study Guide**

Your textbook comes with a CD-ROM which contains terrific animations that illustrate concepts discussed in the textbook and in lectures. A Study Guide is also contained on the CD, along with Self-Tests. The CD can be loaded onto your own computer (IBM or MacIntosh) for personal use.

This CD-ROM is also available to you in PAS 1237. To access the contents of the CD, log on to any computer in PAS 1237, and type in your NEXUS account user id and password. Accounts are available to all students. (Just click on 'Create Account" at one of these computers, if you do not already have an account). Once logged on, go to Start> Program Files> Arts> Psychology> Psych 261, and run the .exe program. If you have trouble logging on, please see or email your TA, Kevin Barton@uwaterloo.ca for help.

# Course Web page / Using UWACE:

#### What is UW-ACE?

It is a web-based course management system that enables instructors to interact easily and efficiently with their students. Here, I will post lecture notes, grades, and the course syllabus. Course announcements, and answers to Frequently Asked Questions will also be posted on UWACE.

#### **How do I log into UW-ACE?**

Type http://www.uwace.uwaterloo.ca and log on using your Quest/UWdir userid and password.

## What should I do if I can't get logged into UW-ACE?

If you know that you should have access to a course using UW-ACE, but are having trouble logging in, please confirm that your QUEST/UWdir userid and password are correct. If you confirm that your userid and password are correct and **still cannot log in**, **please check with your Teaching Assistants to ensure that you are on the class roster**. If you continue to encounter difficulties, please e-mail uwacehelp@ist.uwaterloo.ca stating your name, Uwuserid, student ID number and the course to which you wish access.

#### Note for students with disabilities:

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

#### Note on avoidance of academic offences:

All students registered in the courses of the Faculty of Arts are expected to know what constitutes an academic offence, to avoid committing academic offences, and to take responsibility for their academic actions. When the commission of an offence is established, disciplinary penalties will be imposed in accord with Policy #71 (Student Academic Discipline). For information on categories of offences and types of penalties, students are directed to consult the summary of Policy #71 which is supplied in the Undergraduate Calendar (section 1; on the Web at

http://www.adm.uwaterloo.ca/infoucal/UW/policy\_71.html). If you need help in learning how to avoid offences such as plagiarism, cheating, and double submission, or if you need clarification of aspects of the discipline policy, ask your TA or course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean. Please also note the following link to the Arts Faculty Web page, "How to Avoid Plagiarism and Other Written Offences: A Guide for Students and Instructors" (http://watarts.uwaterloo.ca/~sager/plagiarism.html)

#### **About Your Instructor**

In my research I aim to understand the processes involved in higher cognitive functions such as memory, attention and language. I use a combination of behavioural tests and neuro-imaging to identify the brain basis of these functions. In addition I study how the normal aging process affects cognition, particularly one's ability to carry out memory tasks concurrently with other tasks (dual-tasking). This work is used to test and refine current models of how memory encoding and retrieval operate.

# Who can I see if I have questions about the course material?

See your Teaching Assistants if you have questions about material covered in the textbook. See Dr. Fernandes for questions about material covered in the lectures.

#### The following pages contain the Tentative Schedule for classes:

Topic	Text Reading	Date
Introduction / History		Tuesday Sept. 9 <sup>th</sup>
Evolution / Structure of Cells	Ch. 1	Thurs. Sept. 11 <sup>th</sup>
Neurons	Ch. 2	Tuesday Sept 16 <sup>th</sup>
Communication between neurons	Ch. 2	Thurs. Sept. 18 <sup>th</sup>
Neuroanatomical terms	Ch. 3	Tuesday Sept 23 <sup>rd</sup>
Brain structures / Neural Development	Quiz #1 (and lecture to follow)	Thurs. Sept 25 <sup>th</sup>
Methods in Research	Ch. 5	Tuesday Sept. 30 <sup>th</sup>
Mid-term test #1	Mid-term test #1 (rooms TBA)	Thurs. Oct 2 <sup>nd</sup>
Psychopharmacology	Ch. 4	Tuesday Oct 7 <sup>th</sup>
Drugs	Ch. 6	Thurs. Oct 9 <sup>th</sup>
Vision	Ch. 6	Tuesday Oct. 14 <sup>th</sup>
Disorders of Vision		Thurs. Oct. 16 <sup>th</sup>
Audition / Body Senses	Quiz #2 (and lecture to follow) Ch. 7	Tuesday Oct 21 <sup>st</sup>
Sleep	Ch. 9	Thurs. Oct 23 <sup>rd</sup>

Topic	Text Reading	Date
Emotion	Ch. 11 (pp. 380-393)	Tuesday Oct 28 <sup>th</sup>
Mid-term test # 2	Mid-term test # 2 (rooms TBA)	Thurs. Oct. 30 <sup>th</sup>
Flashbulb memories / Memory loss Conditioning / Learning	Ch. 13	Tuesday Nov 4 <sup>th</sup> Thurs. Nov 6 <sup>th</sup>
Neurological Disorders  Memory and Aging	Ch. 15	Tuesday Nov 11 <sup>th</sup> Thurs. Nov 13 <sup>th</sup>
Hemispheric Asymmetries Human Communication	Ch. 14	Tuesday Nov 18 <sup>th</sup> Thurs. Nov 20 <sup>th</sup>
Schizophrenia and Affective Disorders / Review	Ch. 16	Tuesday Nov 25 <sup>th</sup>
Mid-term test # 3	Mid-term test # 3 (rooms TBA)	Thurs. Nov 27 <sup>th</sup>

<sup>\*</sup>Note that this is a tentative lecture schedule and is subject to change. Sometimes we are able to move a bit faster than what is scheduled, and other times we move a bit slower than projected. As such, I cannot guarantee that these topics will be covered on exactly these days.

<sup>\*\*</sup>Note that the scheduled dates for tests and quizzes will not change.