# Psychology 261, Spring 2008 Physiological Psychology

 Time: Tu/Th 10:00AM – 11:20AM
 Place: MC 1085

 Instructor: Daniel Smilek, Ph.D.
 Office: PAS 4051

 Phone: (519) 888-4567 ext. 35365
 E-mail: dsmilek@uwaterloo.ca

 UW ACE: 1085 PSYCH 261: Physiological Psychology
 Office hrs: F: 12:00-2:00, and by appointment.

# **Required Text:**

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

### **Teaching Assistants:**

Name	<u>e-mail</u>	Office	Office Hours
Lana Goldberg	<u>l2goldbe@uwaterloo.ca</u>	PAS 4229	Tu 12:00PM - 1:00PM
Grayden Solman	gsolman@uwaterloo	.ca PAS 2	257 TBA

# **Course Description:**

Physiological psychology examines the relationship between biology, cognition and behaviour. The goal of this course is to introduce you to the fundamental physiological processes underlying brain and behaviour relationships in humans. The course will cover cellular, neurochemical and neural network levels of analysis of human cognition and behaviour. Topics covered include: 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 parts of this vast research domain, the material will hopefully give you new insights into how your mind works.

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 of clarification. 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 covered in lectures and likewise, there will be material in the lectures that is not in the text.

# **Evaluation:**

Quizzes 1 & 2 (6% each)	12%
Tests 1 & 2 (30% each)	60%
Test 3	24%
Participation in Experiments	4%

<u>Quizzes:</u> The quizzes will consist of multiple choice questions and fill in the blanks. The purpose of the quiz is to guide your studying and assess your knowledge of the material. The quizzes will take approximately 15 minutes to complete and will take place in the regular classroom. If you miss as quiz, it is your 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.

<u>Tests</u>: The purpose of the three tests is to assess your understanding of the material in the course. The tests will not be cumulative. Each test will be 70 minutes in length and will be based on the material presented in the text and in lectures. Each test will be composed mostly of multiple choice questions, with some short answer/fill-in the blank questions and will be written either in the regular classroom or in rooms to be determined (information on test location will be posted on UW ACE, and during lectures).

<u>Participation in Experiments:</u> Student participants may earn up to 4 percentage points towards their final mark in Psychology 261 by participating in Cognitive Psychology and Behavioral Neuroscience studies conducted by students and faculty in the Department of Psychology. See attached guidelines for participation in psychology research for more details.

# UW ACE:

UW ACE 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 UW ACE. To log into UW ACE, type http://www.uwace.uwaterloo.ca in your internet browser and log on using your Quest/UWdir userid and password. 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. Please note that UW-ACE is case sensitive, so you must type your password with the appropriate upper and lower case letters. 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. Finally, please note that if there is a discrepancy between the hard copy of the syllabus and the syllubus posted on UW ACE, the outline on UW ACE will be deemed the official version.

### A note on computers:

All undergraduate students in the Faculty of Arts may obtain a free computer account on Waterloo Polaris. The account gives students free access to applications such as word processing, statistical and graphics packages, spreadsheets, and electronic mail, as well as the Internet. Students are charged for printing and can put money for printing on to their Arts Computing Resources Account at PAS 1080 using their WATCARD. Instructions for obtaining a Polaris account are available from the Arts Computing Office.

### **Policy Regarding Illness:**

Students are entitled to a rescheduling of tests or an extension of deadlines for legitimate medical or compassionate reasons. Students are also entitled to rescheduling tests based on religious grounds. However, it is the student's responsibility to (1) inform the instructor <u>prior</u> to the due date, (2) arrange a timely makeup, and (3) provide acceptable documentation to support a medical, compassionate, or religious claim.

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.

### 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 academic integrity, to avoid committing academic offences, and to take responsibility for their 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 www.adm.uwaterloo.ca/infousec/Policies/policy71.htm). If you need help in learning what constitutes an academic offence; how to avoid offences such as plagiarism, cheating, and double submission; how to follow appropriate rules with respect to "group work" and collaboration; or if you need clarification of aspects of the discipline policy, ask your TA and/or your course instructor for guidance. Other resources regarding the discipline policy are your academic advisor and the Undergraduate Associate Dean.

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm

Please also note the following link to the Arts Faculty Web page, **"Avoiding Academic Offences"** (http://arts.uwaterloo.ca/arts/ugrad/academic\_responsibility.html).

# **Tentative\* Lecture Schedule:**

Week of	<u>Topic</u>	Text Reading
May 6, 8	Introduction/ History	Chpt. 1
May 13, 15	Neurons	Chpt. 2
May 20, 22 May 22	Neuroanatomy Quiz 1	Chpt. 3
May 27, 29	Neural Development/ Methods in Research	Chpt. 5
June 3 June 5	<b>Test 1</b> Methods in Research	Chpt. 5
June 10, 12	Psychopharmacology/Drugs	Chpt. 4
June 17, 19 June 19	Vision Quiz 2	Chpt. 6
June 24, 26	Other Senses/Sleep	Chpts. 7 & 9
July 1 July 3	Canada Day! <b>Test 2</b>	
July 8, 10	Emotion/Learning and Memory	Chpts. 11 & 13
July 15, 17	Special Topics	Readings on UW ACE
July 22, 24	Disorders	Chpts. 15 & 16
July 29	Test 3	

\*Note that this is a tentative lecture schedule and is subject to change. The amount of class time that is spent on each of the topics listed above depends in part on class interest. If students are interested in a particular topic then it may be expanded at the expense of other topics. Therefore, I reserve the right to make changes as necessary. However, I will point out all changes in class and, in particular, what information you will be expected to know for exams.

#### Participation in Psychology Research: Guidelines for Psychology 261, Spring 2008

Experiential learning is considered an integral part of the undergraduate program in Psychology. Participation in research is one example of this. A number of undergraduate courses have been expanded to include opportunities for Psychology students to volunteer as research participants enabling them to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience.

Student participants may earn up to 4 percentage points towards their final mark in Psychology 261 by participating in Cognitive Psychology and Behavioral Neuroscience studies conducted by students and faculty in the Department of Psychology. Participation is worth .5 participation credits (percentage points) for each half hour session. Researchers will record student's participation and will advise the course instructor of the total points earned by each student at the end of the term. Students who do not wish to participate in research may choose an alternative approach to earning the same number of points; this is explained below in "Alternative to participating in research".

Since experiential learning is highly valued in the Department of Psychology and part of this course, students can earn up to 4% of their final grade by participating in these experiments.

Please note that all Psychology studies have undergone prior ethics review and clearance through the Office of Research Ethics.

#### Educational focus of participation in research

To maximize the educational benefits of participating in research, students will receive feedback information following their participation in each study detailing the following elements:

- Purpose or objectives of the study
- Dependent and independent variables
- Expected results
- References for at least two related research articles
- Provisions to ensure confidentiality of data
- Contact information of the researcher should the student have further questions about the study
- Contact information for the Director of the Office of Research Ethics should the student wish to learn more about the general ethical issues surrounding research with human participants, or specific questions or concerns about the study in which sh/he participated.

#### How do I sign up?

REG has created an account for you on SONA (our web-based Study Sign-Up system) at <a href="http://uwaterloo.sona-systems.com">http://uwaterloo.sona-systems.com</a>. User ID is your Quest ID (eg. j2smith), temporary password is your Student ID (eg 2001234). Log in to your account, read/acknowledge the ORE "Human Subjects/Privacy Policy" then complete a very brief (10 minute) "Prescreen" questionnaire to provide basic demographic info. You will nott receive a credit for this and you may decline if you wish however completing it will increase your eligibility for other studies. Once you have completed (or declined) the Prescreen questionnaire you should go to "My Profile" and enter your preferred (Alternate) email address. Then you can go to "Study Sign-Up" and select any studies that is listed as "Eligible" for Psych 261 that interests you and sign-up for a day/time that fits your schedule. You'll receive a confirmation email and a reminder the day before the study. Upon completion of the study you will receive feedback about the study hypothesis, design and predictions. Your study credit will be granted within 48 hours. You can view your sign-ups and credits on the "Schedule/Credits" page.

#### When should I sign up?

Right away, the sooner the better!!! The On-line study "Mass Testing Survey S08", worth 1.0 online credit, will be offered until June 2<sup>nd</sup> and you should do this study as soon as possible. Researchers often select participants based on their responses and doing this survey increases your eligibility for other studies. Note that you can only do this survey if you have completed the Prescreen questionnaire. Doing both Prescreen and Mass Testing Survey helps you (by providing more qualifying studies and researchers (by identifying more qualified participants) so we would greatly appreciate it if you would do both.

Are there any restrictions to the studies I can sign up for? Yes ...

- i) the study must be eligible for Psych 261 (as noted in the Eligibility column on the Study Sign-Up page"). Be sure to assign the credit to Psych 261 when you sign up.
- ii) only 2 of your credits can be earned for Online studies i.e., Mass Testing Survey S08 being one of them.
- iii) you should try to spread your participation out over the term.

The last day to participate for credit is July 30 but you can participate for pay until August 16.

#### Where can I get more information, instructions, help with login problems etc?

Use the contact link at the bottom of every Sona page or to contact: REG website: <u>http://www.arts.uwaterloo.ca/~regadmin/regparticipant</u> REG/Sona Coordinator: <u>regadmin@watarts.uwaterloo.ca</u>

#### Alternative to participating in research

Students are not required to participate in research, and not all students wish to do so. As an alternative to participation in research, students may opt to review articles relevant to psychology and write a short 1 page review. Each review articles counts as one percentage point. The instructor will provide a list of acceptable journals from which articles may be taken, and will require that the student provide a copy (electronic or hard) of the article for prior approval before writing and submitting the review. The review must:

- Be submitted by **July 25**.
- Be typed
- Include title, author, source and date of the article. A copy of the article must be attached.
- Identify the psychological concepts in the article and indicate the pages in the text that are applicable.
- Clearly evaluate the application or treatment of those concepts in the article.

Students may complete any combination of a) participation in research or b) article review up to a total of 4% points.

*List of acceptable journals:* Journal of Cognitive Neuroscience; Neuroscience; Neuropsychology; Neuropsychologia; Brain Research; Brain and Cognition; Neuron; Nature; Nature Reviews Neuroscience.