

Psychology 261, Winter 2007 Physiological Psychology

Time: M, W, F 10:30 – 11:20

Place: DC 1351

Instructor: Daniel Smilek, Ph.D.

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UW ACE: 1071 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:

<u>Name</u>	<u>e-mail</u>	<u>Office</u>	<u>Office Hours</u>
Marc Hurwitz	mhurwitz@artsmail.uwaterloo.ca	PAS 4214	TBA
Amanda Clark	aclark@watarts.uwaterloo.ca	PAS 4219	TBA
Shannon O'Malley	somalley@artsmail.uwaterloo.ca	PAS 4044	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 – 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 be covered in lectures and likewise, there will be material in the lectures that is not in the text.

Evaluation:

Quiz 1	6%
Quiz 2	6%
Mid-term 1	25%
Mid-term 2	25%
Final Exam	34%
Participation in Experiments/Assignments	4%

Quizzes: The quiz will consist of multiple choice questions and fill in the blanks. The purpose of the quiz is to give you an idea of the difficulty of the exam questions as well as your understanding of the material. The quizzes will take approximately 15 minutes to complete and will take place in the regular classroom. If you miss a 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.

Mid-term Tests: The purpose of the two midterms is to test your understanding of the material in the course. The two midterm exams will not be cumulative. Each midterm will be 45 minutes in length and will be based on the material presented in the text and in lectures. Each midterm 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).

Final Exam: The final exam will not be cumulative and will test information covered after the second midterm. The location and time of the final exam will be scheduled by the registrar and will be posted on UW ACE and will be mentioned in class. The final exam will be composed mostly of multiple choice questions, with some short answer/fill-in the blank questions

Participation in Experiments/Assignments: 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 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.

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. You may choose any article related to physiological psychology from an academic journal. The review must:

- Be submitted by (April 3rd 2007)
- 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.

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 syllabus 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 prior 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:

<u>Week of</u>	<u>Topic</u>	<u>Text Reading</u>
Jan 3, 5	Introduction/ History	Chpt. 1
Jan 8, 10, 12	Neurons	Chpt. 2
Jan 15, 17, 19 Jan 19	Neuroanatomy Quiz 1	Chpt. 3
Jan 22, 24, 26	Neural Development/ Methods in Research	Chpt. 5
Jan 29 Jan 29, 31, Feb 2	Mid-term 1 Psychopharmacology	Chpt. 4
Feb 5, 7, 9	Drugs/ Vision	Chpt. 6
Feb 12, 14, 16 Feb 16	Vision/Other senses Quiz 2	Chpt. 7
Feb 19, 21, 23	Reading Week (Enjoy!)	
Feb 26, 28, Mar 2	Sleep/Emotion	Chpts. 9 & 11
Mar 5, 7, 9 March 9	Learning & Memory Mid-term 2	Chpt. 13
Mar 12, 14, 16	Hemispheric Asymmetries/ Human Communication	Chpt. 14
Mar 19, 21, 23	Special Topics	Readings on UW ACE
Mar 26, 28, 30	Neurological Disorders	Chpts. 15 & 16
April 2	Review	
TBA	Final Exam	

***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.**