

Psychology 261, Spring 2010 Physiological Psychology

Time: Tu/Th 10:00AM – 11:20AM
Instructor: Daniel Smilek, Ph.D.
Phone: (519) 888-4567 ext. 35365
UW ACE: 6287, Spring 2010, PSYCH.261.001.1.LEC, Physiological Psychology.
Office hrs: F: 12:00-2:00, and by appointment.

Place: RCH 301
Office: PAS 4051
E-mail: dsmilek@uwaterloo.ca

Required Text:

Kalat, J. W. (2009). Biological Psychology, 10th Edition, Belmont, CA: Wadsworth

Teaching Assistants:

<u>Name</u>	<u>e-mail</u>	<u>Office</u>	<u>Office Hours</u>
Deltcho Valtchanov	dvaltcha@uwaterloo.ca	PAS 2261	T 1:00 pm to 2:00 pm
Amandine Lassalle	alassall@uwaterloo.ca	PAS 2248	W 9:00 am to 11:00 pm

Course Description:

The goal of this course is to introduce you to the scientific study of the brain and how it is involved in cognition and behavior. Throughout the course we will discuss a variety of methods used for studying the relation between the brain, cognition and behavior. These will include neuroimaging, brain stimulation, the use of animal models and various biochemical methods. Topics that will be covered include neural function, neuroanatomy, psychopharmacology, the senses (e.g., vision), memory, emotion, sleep and mental disorders (e.g., mood disorders). The studies discussed will include both classic work as well as current cutting-edge research.

Because of the size of the class, I will spend most of class time lecturing. However, I encourage questions and comments and I am sure that interesting discussions will spontaneously emerge during the class. I would like to highlight that it is important that you attend lectures and study the textbook. Although there will be some overlap between lectures and text, there will be material that does not overlap. You are responsible for all of the material covered in class and in the assigned readings.

Evaluation:

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

Quizzes: The quizzes will consist of multiple choice questions and fill in the blanks. The purpose of the quizzes 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.

Tests: 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. Given the size of the class, each test will contain mainly 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).

Participation in Experiments: 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.**

E-Mail Communication:

If you would like to contact either the course instructor or the teaching assistants, please use the e-mail addresses provided on the syllabus. Although we will be checking UW ACE email correspondence from time-to-time, the best way to contact the instructor and the teaching assistants is to use the e-mails above. Students are responsible for all e-mail that is sent to their official UW e-mail address. Check your e-mail regularly for important and time sensitive messages.

UW ACE:

I will be using UW ACE to **post lecture notes, grades, and the course syllabus. Course announcements, and answers to frequently asked questions will also be posted on UW ACE.** Make sure you check your UW ACE account regularly to stay on top of the material in the course and any announcements.

Policy Regarding Illness:

Students who are requesting accommodation for course requirements (*assignments, midterm tests, final exams, etc.*) due to illness should do the following:

- seek medical treatment as soon as possible and obtain a completed UW Verification of Illness Form: http://www.healthservices.uwaterloo.ca/Health_Services/verification.html
- submit that form to the instructor within 48 hours.
- (preferably) inform the instructor by the due date for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming.

In the case of a missed final exam, the instructor and student will negotiate an extension for the final exam which will typically be written as soon as possible, but no later than the next offering of the course.

In the case of a missed assignment deadline or midterm test, the instructor will either:

- waive the course component and re-weight remaining term work as he/she deems fit according to circumstances and the goals of the course, or
- provide an extension.

In the case of bereavement, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.

Students who are experiencing extenuating circumstances should also inform their academic advisors regarding their personal difficulties.

The Official Version of the Course Outline:

If there is a discrepancy between the hard copy outline (*i.e., if students were provided with a hard copy at the first class*) and the outline posted on ACE, the outline on ACE will be deemed the official version. Outlines on ACE may change as instructors develop a course, but they become final as of the first class meeting for the term.

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.

Concerns About the Course or Instructor (Informal Stage):

We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Dr. Colin Ellard) is available for consultation and to mediate a resolution between the student and instructor. Dr. Ellard's contact information is as follows:

Email: cellard@uwaterloo.ca Ph 519-888- 4567 ext 36852

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See Policy 70 and 71 below for further details.

Academic Integrity, Academic Offenses, Grievance, and Appeals:

To protect course integrity, as well as to provide appropriate guidance to students, course outlines in the Faculty of Arts must include the following note on avoidance of academic offenses:

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check <http://www.uwaterloo.ca/academicintegrity/> for more informaton.]

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about 'rules' for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under [Policy 71 - Student Discipline](#). For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm), <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm> For typical penalties check Guidelines for the Assessment of Penalties <http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm>

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm> When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals: A student may appeal the finding and/or penalty in a decision made under [Policy 70](#) - Student Petitions and Grievances (other than regarding a petition) or [Policy 71](#) - Student Discipline if a ground for an appeal can be established. Read [Policy 72](#) - Student Appeals,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm> Academic Integrity website (Arts):

http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html Academic Integrity Office (UW):

Academic Integrity website (Arts): http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

Academic Integrity Office (UW): <http://uwaterloo.ca/academicintegrity/>

Tentative* Lecture Schedule:

<u>Dates</u>	<u>Topic</u>	<u>Text Module</u>
May 4, 6	Introduction/ History	Mod 1.1 – 1.3
May 11, 13	Neurons	Mod 2.1 – 3.2
May 18, 20 May 20	Neuroanatomy Quiz 1	Mod 4.1 – 4.2
May 25, 27	Methods in Research Neural Development	Mod 4.3 Mod 5.1
June 1 June 3	Test 1 Plasticity	Mod 5.2
June 8, 10	Psychopharmacology/Drugs	Mod 3.3
June 15, 17 June 17	Vision Quiz 2	Mod 6.1 – 6.3
June 22, 24	Other Senses Sleep	Mod 7.1 – 7.2 Mod 9.1 – 9.3
June 29 July 1	Test 2 Canada Day!	
July 6, 8	Emotion Learning and Memory	Mod 12.1 – 12.2 Mod 13.1 – 13.2
July 13, 15	Special Topics	Readings on UW ACE
July 20, 22	Disorders	Mod 15.1 – 15.2
July 27	Test 3	

*** Please note that the details of this schedule might change depending on class interest and possible class interruption due to unexpected events. I will announce any changes either in class on UW ACE so make sure you are regularly attending class and checking UW ACE.**

Research Experiences Group (REG) Participation in Psychology Research: Guidelines for Psychology, Psych 261, Spring 2010

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.

Since experiential learning is highly valued in the Department of Psychology, students may earn up to 4% of your final mark in this course through research experience (i.e., your course work will make up 96% of your final mark and research experience will make up the other 4% for a maximum grade of 100%).

Research experience can be obtained in two ways. First, you may participate in Lab and Online studies conducted by students and faculty in the Department of Psychology. Participation is worth 0.5 participation credits (percentage points) for each 30 minutes of participation. Researchers will record student's participation and the REG Coordinator will advise the course instructor of the total credits earned by each student at the end of the term. Second, if you do not wish to participate in research, you may choose an alternative approach to earning the same number of credits; this is explained below in "Alternative to participating in research."

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 to sign up for studies:

Once you are registered in this course, you will get an account on Sona (our web-based Study Sign-Up system) at <http://uwaterloo.sona-systems.com> and you will receive an email with your UserID and Password. IF YOU DO NOT RECEIVE this email, please report this to regadmin@uwaterloo.ca immediately. You may nevertheless log on to your Sona account and start signing up for studies as described below.

- 1) Log On to Sona: User ID is your Quest ID (eg. j2smith)
Password is your Student ID (eg 2001234)
- 2) Human Subjects/Privacy Policy: Please Read/Acknowledge
- 3) Prescreen Questionnaire: Please take 10 minutes to provide this demographics information. There is no credit for this and you may decline if you wish however completing it will increase your eligibility for studies.
- 4) Sign-up for Online Surveys and/or Lab studies:
 - a. Go to "Studies" page to view the list of available studies.
 - b. Click on the Titles of studies that are eligible for this course.
 - c. Read the Study Information page.
 - d. For Online studies: Click on "View Timeslots" and/or "Participate".
 - e. For Lab studies: Click on "View Timeslots" to set up lab appointments.

- 5) **Feedback and Credits:** Upon completion of the study you will receive feedback about the study hypothesis, design and predictions. Within 48 hours you will be granted the credit. Credits will be converted to grades and added to your final grade at the end of the term.

Mass Testing Survey (for 1.0 participation credit):

You should do this Online study FIRST ... before doing any other Online studies. Researchers often select participants based on their responses to the measures in this survey. Completing it increases your eligibility for other studies. Note that you can only do this survey if you have completed the Prescreen questionnaire. Doing both Prescreen Questionnaire and Mass Testing Survey helps you (by providing more qualifying studies) and it helps researchers (by directing them to eligible participants). The Mass Testing Survey will be available until Monday June 14 at which time it will go offline, so please try to complete it before that date.

Study Restrictions and Important Dates:

- i) The first day to start participating in studies is Monday May 3.
- ii) The study must be eligible for a credit in this course (as noted in the Eligibility Requirements column on your Studies page).
- iii) **Only 2 of your credits for this course** can be for **Online** studies.
- iv) You should try to spread your participation out over the term i.e., if you wait until late in the term there may not be enough studies available for you.
- v) Mass Testing Survey closes Monday June 14.
- vi) Online limit override begins Monday June 14 (see note below).
- vii) The last day to participate for **credit** is Wednesday July 28.
- viii) The last day to participate for **remuneration/pay** is Friday August 13.

Online credit limit and override for students in multiple REG courses:

The Sona system automatically prohibits participants from signing up for more than 2.0 (TWO) online credits *per person*. If you are in MORE THAN ONE REG course this term the REG Coordinator will override this limit in order for you to sign up for up to 2.0 (TWO) extra online credits *per course* starting Monday June 14. At that time, details will be posted on the FAQ page of your Sona account, item 4 and an email notice will be sent to you.

Denial of access to studies: Completing studies that you have signed up for!

It is very important that you complete the studies that you have signed up for. For Lab studies this means showing up for the scheduled appointment. For Online studies this means completing the survey before the deadline that is posted in the timeslot. Please note that a study sign-up is a firm commitment to the researcher running the study so if you cannot keep the lab appointment or complete the survey before the deadline, please cancel the Sign-Up or contact the researcher in advance. Failure to attend 3 (THREE) Lab and/or Online studies that you have signed up for without providing adequate prior notice to the researcher may result in denial of access to further studies. Details are provided on the FAQ page on your Sona account.

For information, instructions, help with login problems etc. please contact:

REG website: <http://www.arts.uwaterloo.ca/~regadmin/regparticipant>
 REG Coordinator: regadmin@uwaterloo.ca

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 gaining experience in research by participating in studies, students may submit short reviews (1½ to 2 pages) of research articles. Each review article counts as one percentage point. Your professor will specify a suitable source of articles for this course (i.e., scientific journals, newspaper, magazine, other printed media) and the article must relate to material that is covered in your course. *You must contact your TA to get approval for the article you have chosen before writing the review.* To receive credit, you must follow specific guidelines. The article review must:

- **Be submitted before Wednesday July 28. Late submissions will NOT be accepted under ANY circumstances.**
- Be typed
- Fully identify the title, author(s), 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 textbook that are applicable. Critically evaluate the application or treatment of those concepts in the article. If inappropriate or incorrect, identify the error and its implications for the validity of the article. You may find, for example, misleading headings, faulty research

procedures, alternative explanations that are ignored, failures to distinguish factual findings from opinions, faulty statements of cause-effect relations, errors in reasoning, etc. Provide examples whenever possible.

- Clearly evaluate the application or treatment of those concepts in the article.
- Keep a copy of your review in the unlikely event we misplace the original.

Students may complete any combination of a) participation in research or b) article review up to a total of 4 credits (i.e., 4% grade).

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