

307 Human Neuropsychology – Winter 2011

Instructor: Roxane Itier
PAS 4023
Office Hours: By appointment only.

All correspondence should be done through UW-ACE

*** classes: Tuesdays and Thursdays 1-2:20pm MC 1056 ***

Teaching Assistants

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Course Web Page: Lectures will be available on UW-ACE the morning before the lecture.

Course Description and Aims

This course will provide you with a broad understanding of methods in human neuropsychological research including functional imaging and group and single case lesion studies, as a means of providing a broad understanding of human neuropsychology/cognitive neuroscience. Both basic research and clinical examples will be used to explore the brain-behaviour relationships inherent in motor control, language, vision, attention, memory, emotion and executive control.

Course Text

Banich, M. T. & Thompson, R.J. *Cognitive Neuroscience. Third edition.* (2011) Wadsworth, Cengage Learning, CA, USA.

Assessment

* There will be **one mid-term** worth **25%** of the final grade which will include all the material covered in class (and corresponding chapters in the book) since the first lecture until the February 10th lecture inclusive. The mid-term will be on February 17th during normal class hour. Will consist of multiple choice questions and short questions.

* There will be a **final exam** worth **40%** of the final grade which will cover the entire course material. This will be held during the regular final exam period in April (between April 8th – April 21st, exact date will be announced later in the term). MCQ, short questions, short essays (2h).

* Five percent (**5%**) of your grade will come **from participation in research experiments (see details below under Research Experiences Marks – information and guidelines)**. In this instance 0.5% can be earned by participating in one half hour experiment, so to get the full 5% you will need to complete 5 full hours of experiments (see details below). If you decide you do not want to participate in experiments you can complete alternate assignments, each be worth 1%. So if you choose to collect 4 experimental credits you can make up the final 1% through an assignment. If you chose not to do any experimental credits you will need to do 5 assignments.

See details concerning alternate assignments under Research Experience Marks below).

Alternate assignments must all be finalised before March 31st. Late submissions for alternate assignments will NOT be accepted under ANY circumstances. Experimental credits deadline will be online (see details under Research Experiences Marks below).

* The final **30%** of your grade will come from **2 written assignments worth 15% each**. For each assignment, you will choose one article from a list of papers that will be available on UW-ACE ahead of time. All assignments have the same following constraints:

- Maximum 5 pages (minimum 4 pages) double-spaced 12 point font, excluding references, APA style
- references can NOT come from the web – source material MUST include original journal articles
- the assignment is a critic review of the paper, made up of 4 main parts: the first part should be a summary of the paper (goal, method used, major findings, conclusions); the second part should highlight the positive aspects of the paper; the 3rd part should highlight the negative aspects of the paper; the 4th and last part should be your own contribution and detail what you would have done to address the initial goal; you need to think and describe an alternate experiment using one or several methods seen in class.

Due dates for the three written assignments:

Assignment 1: February 1st - (list of papers available on UW-ACE on January 6th)

Assignment 2: March 22nd - (list of papers available on UW-ACE on February 1st)

For each written assignment, you will lose 1% of the grade for every late day. So after 10 days, you will get a 0 for that assignment if you haven't submitted it.

Course Outline

Chapters 1 and 2 are assumed known knowledge from previous years. You are required to read them. The following is the expected progression of the course and may not be exact.

January 4 th		Introduction to Human Neuropsychology	
Jan 6 th	Topic 1	Methods to study Human Neuropsychology	(Chapter 3)
Jan 11 nd	Topic 2	Hemispheric Specialisation	(Chapter 4)
Jan 13 th	Topic 3	Motor Control	(Chapter 5)
Jan 18 th	Topic 3	Motor Control	(Chapter 5)
Jan 20 th	Topic 4	Early perceptual processing	(Chapter 6)
Jan 25 th	Topic 5	Object Recognition	(Chapter 7)
Jan 27 th	Topic 6	Face processing and Recognition	(Chapter 7)
Feb 1st: 1st assignment due			
Feb 1 st	Topic 7	Spatial Cognition	(Chapter 8)
Feb 3 rd	Topic 8	Language	(Chapter 9)
Feb 8 th	Topic 8	Language	(Chapter 9)
Feb 10 nd	Topic 9	Memory	(Chapter 10)
Feb 15 th	Topic 9	Memory	(Chapter 10)

***** Mid-term – Thursday Feb 17th *****

Will cover everything we have seen until Feb 10th

Reading week: Feb 21st – Feb 25th

March 1 st	Topic 10	Attention	(Chapter 11)
March 3 rd	Topic 11	Executive Functions	(Chapter 12)
March 8 th	Topic 12	Emotion and Social Cognition	(Chapter 13)
March 10 th	Topic 12	Emotion and Social Cognition	(Chapter 13)
March 15 th	Topic 13	Psychopathology	(Chapter 14)
March 17 th	Topic 13	Psychopathology	(Chapter 14)
March 22nd: 2nd assignment due			
March 22 nd	Topic 14	Brain development and plasticity	(Chapter 15)
March 24 th	Topic 14	Brain development and plasticity	(Chapter 15)
March 29 nd	Topic 15	Generalized cognitive disorders	(Chapter 16)
March 31 st	Revisions		

March 31st: last day for alternate assignments

***** Final exam – sometime between April 8th – April 21st TBD *****

Will cover EVERYTHING

Accommodations 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.

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 [check <http://www.uwaterloo.ca/academicintegrity/>], 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 instructor, 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](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm) - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.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](http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm) - Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

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): <http://uwaterloo.ca/academicintegrity/>

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:

- 1) 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
- 2) 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.

Research Experience Marks Information and Guidelines

Experiential learning is considered an integral part of the undergraduate program in Psychology. Research participation is one example of this, article review is another. A number of undergraduate courses have been expanded to include opportunities for Psychology students to earn grades while gaining research experience.

Since experiential learning is highly valued in the Department of Psychology, students may earn **up to 5% of the final mark** in this course through research experience (i.e., the course work will make up 95% of your final mark and research experience will make up the other 5% for a maximum grade of 100%).

The two options for earning research experience grades (participation in research and article review) are described below. Students may complete any combination of these options to earn research experience marks.

Option 1: Participation in Psychology Research

Research participation is coordinated by the Research Experiences Group (REG). Psychology students may volunteer as research participants in lab and/or online (web-based) studies conducted by students and faculty in the Department of Psychology. Participation enables students to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience. Please be assured 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 s/he participated.

Participation is worth 0.5 participation credits (grade percentage points) for each half-hour of participation. Researchers will record student's participation and will advise the course instructor of the total credits earned by each student at the end of the term.

Study scheduling, participation and grade assignment is managed using the [SONA](#) online system. All students enrolled in this course have been set up with a SONA account. It is VERY IMPORTANT that you get an early start on your studies. For detailed instructions on [when and how to access your SONA account](#) and for a list of [important dates and deadlines](#) please, as soon as possible, click on:

<http://www.arts.uwaterloo.ca/~regadmin/regparticipant/sonainfo/#SonaSignUp>

*** Please do not ask the Course Instructor or REG Coordinator for information unless you have first thoroughly read the information provided on this website. ***

More information about the REG program is available at:
<http://www.arts.uwaterloo.ca/~regadmin/regparticipant/>

Option 2: Article Review as an alternative to participation in research

Students are not required to participate in research, and not all students wish to do so. As an alternative, students may opt to gain research experience by writing short reviews (1½ to 2 pages) of research articles relevant to the course (i.e., scientific journals, newspapers or magazines). *You must contact your TA to get approval for the article you have chosen before writing the review.* Each review article counts as one percentage point. To receive credit, you must follow specific guidelines. The article review must:

- **Be submitted before March 31st. 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.