NEUROPSYCHOLOGY (PSYCH2D03)

Syllabus For Winter 2006

Note: for the most up-to-date version of this syllabus, as well as the information referred to in the many links below, please consult the online version of this course web page at http://www.science.mcmaster.ca/psychology/2d03/

NEWS

- Note that one in three lectures in this course will be held in small group sessions during the tutorial times, beginning in the 2nd week of classes. Although these sessions are listed as ‘tutorials’ in the timetable, they are a non-optional component of the course. Part of the course evaluation will be based on work carried out during tutorials.

Instructor

Sue Becker
Office hours: by appointment. Email the course account (psych2d3 at psychology dot mcmaster dot ca), stating the reason for the request, and use a meaningful subject line so that your email is not flagged as spam.

Course Assistance

For course-related questions, please use LearnLink (accessible via www.LearnLink.mcmaster.ca or the "Litte red schoolhouse" icon on campus clusters). Your userid is your student number, and password is your birthdate, in the form year-mo-day e.g. 1984-04-11 (you need the dashes). Go to ‘Courses’ --> ‘Psychology Programme’ --> ‘Psychology 2D03’ --> ‘Psych 2D03 Discussion’. From there, you can post messages, and view other students' messages and replies from your TA's and/or instructor. Either your instructor or one of your TA's will be monitoring the LearnLink discussion each week. If you have a question that is specific to your situation and does not concern the rest of the class then please email it to the course account (psych2d3 at psychology dot mcmaster dot ca) and include a meaningful subject line so that your email is not flagged as spam.

Team I Teaching Assistants: Lecturing and essay marking

For email addresses (in parentheses) add @mcmaster.ca
James Karle (karlejw)
Peter Jansen(jansenpa)
Mira Ross (rossml2)
Graeme Moffat(moffatgd)

Note: The Team I TA's are each responsible for marking essay outlines and essays, giving 1 guest lecture, and monitoring discussions and answering class questions on LearnLink.

Team II Teaching assistants: Small-group session leaders

Jennifer Cometto(comettj), T02, T07
Michael Wong(wongm8), T01, T06
Esther Roche(rocheej), T04, T05
Zahra Ismail(ismaizs), T03, T08

Note: The small-group session leaders will be leading the workshops, overseeing the presentations and class discussions, and marking the presentations, 'mini-essays' and all group work done in the small group sessions.

Schedule

Lectures: Mondays and Wednesdays, 10:30-11:20, in TSH/120
Small-group sessions:
Sectioning into tutorials: If you were not assigned a tutorial section by the registrar because you registered late, or if you wish to switch sections, please send an email to the course account (psych2d3 at psychology dot mcmaster dot ca), and include your name, student number, mcmaster Email address and top 3 choices of tutorial section. You cannot join a tutorial section or switch sections without permission. The TA's will only accept submitted work done during a tutorial by students who are on their list.

Course Objectives

The main objective of this course is to give the student an understanding of the neural mechanisms underlying a wide range of psychological functions. We examine brain function by drawing on converging evidence from a wide range of approaches including behavioural testing of both healthy individuals and those with neuropsychological disorders, functional neuroimaging and other electrophysiological measures, with an emphasis on clinical case studies. A second objective is to develop the student's skills in critical evaluation of the scientific literature and in writing and oral communication, through the use of problem-based exercises in small group sessions.

Evaluation

Midterm test 25%
Final exam 35%
Group presentation 10%
2 Mini-essays, 2.5% each 5%
Group essay outline and references 5%
Group essay 15%
Peer feedback on 9 other groups' presentations, 0.5% each 4.5%
Peer feedback on own group's presentation 0.5%

Group work and penalties for late or missed work

Students will work in groups of up to five for most of their tutorial/workshop assignments, their presentation and their essay. Marks for presentations, essay outlines and essays will have both an individual component and a group component. Some of the work assigned in tutorials will be submitted during the tutorial; failure to do so will result in loss of marks for the corresponding component of the course; see this link for details.

Mini-essays

Mini-essay #1 is due at the beginning of Tutorial #4 (in week 5 of classes), and mini-essay #2 is due on March 27 by 10am in the Psych2D03 assignment drop-box. Follow this link for further details. See the late policy below. Peer feedback on mini-essay #1 will be given during Tutorial #4. Penalties for late/missed assignments: see this link.

Essay Outlines

Marking scheme and Submission instructions: click here.
Due dates: Individual sections of the essay outline must be submitted electronically by Thursday February 9. The group essay outline is due in hardcopy on Monday February 13 by 10am. Penalty for late/missed essay outlines: see this link. Any critical comments on the essay outlines that would necessitate a major revision (e.g. unsuitable theme or choice of articles) will be emailed by the start of week 8 (Monday Feb 27). All essay outlines will be returned during the tutorial #7 (in week 8 of classes). See tutorial #5 notes for further details on what to include in the essay outline.

Essays

Topics: click here.
The format of the essays will be discussed during the first three tutorials.
Marking scheme: click here
Submission instructions: click here. Essays must be submitted both in hard-copy and electronically to www.turnitin.com. Follow this link for directions for submitting your essay to the turnitin.com website (to access this link use the same userid and password as for accessing the online lecture notes). It is recommended that you login to turnitin.com and create a user profile as early as possible.

Essay due date: Final essays are due by 10am on Monday March 20. As will be explained in the tutorial notes (for tutorials 4-8), there are several 'milestone' components of the essay assignment to be submitted before the final essay is due: 1) Drafts of individual sections are due on Monday March 6; 2) Peer feedback on individual sections is due on Monday March 13; 3) Each individual's drafts of the introduction and discussion paragraphs are due on Monday March 13; all three of these 'milestone' assignments must be emailed to all group members and cc'ed to your TA.

Penalty for not submitting milestones or late submissions of group essay: see this link.

Useful (off-campus) links on essay writing:
1. Kimberly Chapman's How to write an essay
2. Write an Essay: Tips on writing that all-important A-grade essay
3. How to write an essay (University of Birmingham, Department of English)
4. Basic guide to writing an essay, by Kathy Livingston

Presentations

The presentation will cover one of the assigned 10 readings from the coursepack. The required format of the presentation will be discussed during the 2nd and 3rd tutorials.

The presentations will be marked according to the criteria shown on the grade sheet linked to here (word document). Please provide your TA with a copy of this on your presentation date, with your group members' names and the first four digits of your student numbers filled in. There will be a 5% bonus for the first 3 groups. The "presentation skills" component of the mark will be assessed individually, while the "Slides" and "Content" components will be based on the group's overall performance. Each individual's mark may be adjusted according to the peer evaluations of fellow group members -- see next section.

Please read the policy on using overheads versus laptops and lcd projectors linked to here.

Peer evaluations of presentations:

Due on the date of the presentation.

Peer evaluations of other groups' presentations: Each student who is not presenting should submit a non-anonymous peer evaluation of the group's presentation: Record on a sheet of paper your name, your McMaster Email address, and your comments on 1) Ways in which the presentation was done well, and 2) Ways in which the presentation could be improved (constructive criticisms). Your comments may be addressed either to individuals or the entire group. Hand this in to your TA; eventually your comments will be returned to the presenting group members.

Peer evaluations of own group's presentation: Each student should submit via email to their TA an evaluation of each of their fellow group members' contribution to the presentation. Your comments and ratings will be kept confidential; they will not be shown to the other group members. Use the following scale to rate each group member's contribution, and provide a very brief justification for your rating in cases where it is anything other than a 0:
- +2 contribution far exceeded that of the other members
- +1 contribution somewhat exceeded that of the other members
- 0 performed a fare share of the group work
- 1 contribution somewhat below that of the other members
- 2 contribution far below that of the other members

Your TA will be marking your presentation, and may use the above ratings from your group members to adjust your individual mark. Please adhere to the above scale; if all group members get positive scores (or all negative), the scores are meaningless.

**Midterm and final exam**

The midterm test will take place on Monday February 13, 10:30-11:20 in a location TBA. Bring your McMaster Student ID, and a pencil for filling in the multiple choice answer sheet. The midterm test will consist of 30 multiple choice questions, covering the lecture material and tutorial readings for weeks 1 through 6. The TA's will be holding office hours during the two days before the midterm test, at times to be announced. Check here for updates in late January.

The two-hour final exam will take place during the final exam period, will consist of 80 multiple-choice questions, and will cover material for weeks 6 through 13. Your instructor and TA's will be holding office hours during the three days before the final exam at times/locations to be announced. Check here for updates in late March.

*What material will be covered on the midterm test and final exam? Follow [this link](#).*

**Tutorial assignments**

Assigned work for a given tutorial must be submitted during that tutorial, except where valid medical documentation is provided for a missed tutorial. In the first 4 tutorials, as well as the latter half of tutorials 5-8, students will work in small groups on exercises related to essay writing and/or giving oral presentations. In tutorials 5-11, groups will give presentations (one or two presentations per tutorial).

**Missed Presentations and Missed Tutorials**

If a student must miss a presentation or a tutorial due to illness, then as per McMaster's Policy For Absence from School Due to Illness or Compassionate Reasons "... you must bring appropriate documentation to the Office of the Associate Dean of Science (Studies) within one week of the original date of the missed work, and fill out the "Information For Missed Term Work Form". For further details see [http://www.science.mcmaster.ca/~associatedean/services/exemptions.html](http://www.science.mcmaster.ca/~associatedean/services/exemptions.html).

In the case of a missed presentation for valid medical reasons, the remaining members in the student's group will be responsible for giving the complete presentation, including the missing student's part, and the missing student will be assigned a mark based on the group's performance.

In the case of a missed tutorial for valid, documented medical reasons (see above), the student will be permitted to submit, at a later date, the work normally completed during that tutorial. In no other cases will missed tutorial assignments be accepted late.

In the case of a missed tutorial without valid documented medical reasons, the following link details the [penalties for missed tutorial assignments](#) which will be applied.

**Required readings:**

2. **Ten short readings from the recent literature**, to be presented during the tutorials -- listed below (available on [this link](#), password required)

**Lecture topics and readings**: (links to lecture outlines to be added to the course web page at least 1 day prior to each lecture, password required; Readings for lectures will be finalized by the 2nd week of classes):

*Week 1 (Jan 4):* Introduction to Neuropsychology, the organization of the nervous system, and how neurons communicate.
Link to lecture outline: (pdf)

Readings: Selected sections from chapter 1 ('The brain vs the heart', 'Descartes mind-body problem', 'Experimental approaches to brain function', Hebb's theory of learning) Kolb&Whishaw

Week 2 (Jan 9, 11): The effect of drugs on the brain.

Links to lecture outlines: to be added.
Reading: All of chapter 6, Kolb & Whishaw.
Link to notes for tutorial #1 (pdf).

Week 3 (Jan 16, 18): Structural and Functional brain imaging.

Links to lecture outlines: to be added.
Readings: Chapter 7 (except 'Static brain-imaging techniques' section p158-160), Kolb & Whishaw.
Link to notes for tutorial #2 to be added.


Readings: TBA.
Links to lecture outlines: to be added.
Link to notes for tutorial #3 to be added.

Week 5 (Jan 30, Feb 1): The visual recognition pathways.

Readings: TBA
Links to lecture outlines: to be added.
Link to notes for tutorial #4 to be added.

Weeks 6-7 (Feb 6, 8, 13, 15): Vision for action and spatial cognition.

Reading: TBA
Link to lecture outlines: to be added.
Link to notes for tutorials #5 and 6 to be added.

MIDTERM TEST: MONDAY FEB 13th, 10:30-11:20, location: TBA Bring your McMaster Student ID, and a pencil for filling in the multiple choice answer sheet.

READING WEEK Feb 20-24, no classes.

Week 8-9 (Feb 27, March 1, 6): Auditory perception and language.

Readings: TBA
Links to lecture outlines: to be added.
Link to notes for tutorials #7 and 8 to be added.
Reading for paper presentation #3 in tutorial 7: James, T.W., Culham, J., Humphrey, G.K., Milner, A.D. & Goodale, M.A. (2003), Ventral occipital lesions impair object recognition but not object-directed grasping: an fMRI study, BRAIN 126:2463-2475 Part 11.
Reading for paper presentation #4 in tutorial 8: Kansaku, K., Yamaura, A. & Kitazawa, S. (2000), Sex differences in lateralization revealed in the posterior language areas, CEREBRAL CORTEX 10(9):866-872.

Weeks 9-10 (March 8, 13, 15): Memory

Readings: TBA
Links to lecture outlines: to be added.
Link to notes for tutorials #9 and 10 to be added.

**Reading for presentation #5 in tutorial 9:**

**Reading for presentation #6 in tutorial 9:**

**Reading for presentation #7 in tutorial 9:**

**Reading for presentation #8 in tutorial 9:**

**Reading for presentation #9 in tutorial 9:**

**Reading for presentation #10 in tutorial 9:**

**Weeks 11-12 (March 20, 22, 27): Mood disorders.**

**Reading:** TBA
Links to lecture outlines: To be added
Link to notes for tutorial #11 to be added.

**Reading for presentation #9 in tutorial 11:**
Two forms illustrate only three forms of academic dishonesty:

**Weeks 12-13 (March 29, April 3): Executive functions and schizophrenia.**

**Reading:** TBA
Links to lecture outlines: To be added

**Week 13 (April 5): Review, questions.**

**Calculator requirement:**
Calculators will not be required during tests.

**Calendar Description**

**Academic integrity:**
Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at [http://www.mcmaster.ca/senate/academic/ac_integrity.htm](http://www.mcmaster.ca/senate/academic/ac_integrity.htm).

The following illustrates only three forms of academic dishonesty:
1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

In this course, we will be using a software package designed to reveal plagiarism. Students will be required to submit their work electronically so that it can be checked for academic dishonesty.

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**Related courses taught by Sue Becker**

- Psych 3BN3
- Psych 734 - Neural network models of learning (graduate course)

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*Syllabus last revised: December 19, 2004.*