NEUROPSYCHOLOGY (PSYCH2D03)

Syllabus For Winter 2004

NEWS

Note that one in three lectures in this course will be held in small group sessions, beginning on January 7-9 for sessions scheduled in Monday-Wednesday tutorials and beginning January 12-13 for Monday and Tuesday sessions.

The following have been added since the publication of the syllabus in the coursepack:

- Dec 30/03: Room locations and format of the midterm test are now included in section "Tests and Exams" below.
- Dec 31/03: Grade sheet for group presentations now included in section "Presentations". Please bring along a copy of this on your presentation date, with names and student numbers filled in.
- Jan 5/04: Rooms for midterm test must be revised, we will need additional rooms.
- Jan 10/04: Reading list for weeks 1, 2, & 3 modified. Remaining readings will be modified soon.
- Jan 12/04: added information on LearnLink to 'Course Assistance' section
- Jan 19/04: Location of midterm has now been finalized.
  Pat Byrne's email address was incorrect and has been updated.
- Jan 26/04: Reading list for weeks 4, 5 & 6 modified.
- Feb 7/04: Due date for essay outline and essay for Monday and Tuesday tutorials has been modified. See section 'Tutorial assignments'.
- Feb 8/04: Page limit for essay outline added to 'Tutorial assignments' section.
- Feb 13/04: Link to "Policy on using lcd projectors for presentations" added to 'Presentations' section.
- Feb 23/04: Midterm test doesn't count if score is lower than final exam. See evaluation section.
- Feb 25/04: Link to marks added to evaluation section.
- Feb 26/04: Link to midterm test marks added to evaluation section.
- Feb 29/04: Instructions for submitting essays to turnitin.com added to Essays section.
- Mar 5/04: Updated the lecture notes for week 8 Part 2 which were posted the evening of March 4. Added 1 final slide (short-term memory) and made corrections/updates to two slides ("ascending neuromodulatory systems" and "What can you learn when you're missing your hippocampus")
- Mar 6/04: "Essay Outline" subsection added to "Evaluation" section, including marking scheme.
- March 12/04: Link to updated marks added to evaluation section.

Instructor
Sue Becker
Office hours: by appointment. Email
Please use a meaningful subject line in your emails; if the subject is blank or uninformative I will probably assume it is spam and not read it.

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. 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 graduate TA's will be monitoring the LearnLink discussion each week.

Graduate Teaching Assistants

For email addresses (in parentheses) add @mcmaster.ca
Pat Byrne (byrnepa2)
Jessica Phillips-Silver (phillij)
Phillip Gander (pgander)

Tutuorial session leaders

Cindy Narinesingh (narinecm), T01, T08
Shilpy Gupta (guptas4), T06, T09
John Mani (maniija), T05, T07
Krissy Doyle (doyleka), T03, T04
Mona Baig (baigm2), T02

Schedule

Lectures: Tuesdays and Fridays, 15:30-16:20, in TSH/120
Small-group sessions:
  T01 M 13:30-14:20 PC/335  Cindy
  T02 F 13:30-14:20 PC/335  Mona
  T03 W 16:30-17:20 PC/335  Krissy
  T04 W 15:30-16:20 PC/335  Krissy
  T05 W 10:30-11:20 PC/335  John
Course Objectives

The objectives of this course are: 1) to introduce students to a broad range of topics within the field of Neuropsychology, giving the student an appreciation for the methodology used to study brain function in normal and brain-damaged populations, and the perceptual and cognitive deficits associated with neuropsychological disorders; 2) to develop the student's skills in critical evaluation of the scientific literature, writing and oral communication, through the use of problem-based exercises in small group sessions.

Evaluation

- Midterm test 15%
- Final exam 45%
- Group presentation 15%
- Group essay outline 3%
- Group essay 15%
- Exercises for workshop #1 1%
- Exercises for workshop #2 1%
- 10 tutorial discussion questions, 0.5% each 5%

Note: The final grade will either be calculated based on a weight of 15% midterm and 45% final or 60% final, whichever is higher.

The marks entered so far can be found by following this link. The class average on the midterm test was 72%.

Group work

Students will work in groups of up to four for all of their tutorial assignments, their presentation and their essay. Presentations will be given a group mark. Marks for essays will have both an individual component and a group component. The marking scheme for essays and presentations will be posted on the course web page in early January/04.
Essay Outlines

Essay outlines must be submitted in hardcopy during the tutorial in which they are due. [This link](#) explains the marking scheme used for marking the essay outline.

The group essay outline is due during the 7th tutorial session (February 25 - March 2). Submit one outline per group. Include the names and student numbers of all group members.

Essays

The essay will be on a topic that fits in to one of the 10 major topic areas covered in the course. Students may choose their own topic, subject to approval by the instructor, or select one of the [suggested topics](#) listed in the coursepack. The format of the essays will be discussed during the first three tutorials. Essays must be submitted both in hardcopy at the tutorial and electronically to www.turnitin.com.

Follow [this link](#) for directions for submitting your essay to the turnitin.com website (same userid and password as for accessing the online lecture notes). It is recommended that you login and create a user profile as early as possible, and let your instructor know if you have any difficulties. You will not receive a mark for your essay until it has been submitted to turnitin. You must also submit a paper copy on the due date. Only one electronic copy and only once paper copy should be submitted per group.

The group essay is due during the final tutorial session (March 31 - April 6).

Presentations

The presentation will cover one of the assigned 10 readings from the coursepack. The format of the presentation will be discussed during the first three tutorials.

The presentations will be marked according to the criteria shown on the [grade sheet](#) linked to here. 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.

Please read the [policy on using overheads versus laptops and lcd projectors](#) linked to here.

Tests and exams

The midterm test will take place on February 13, 3:30-4:20 in CNH-104. The midterm test will consist of 40 multiple choice questions, covering selected sections (see required readings in lecture outline) from chapters 7, 10, 13, 14 and 15 from the Kolb and Whishaw textbook. The two-hour final exam will take place during the final exam period, will cover material from the entire 13 weeks of lectures.
(selected sections from chapters 7,10,13,14,15,16,18,19,20,21 and 26 from Kolb and Whishaw), and will consist of 80 multiple-choice questions.

To prepare for the midterm test and final exam, students are encouraged to try the practice tests for the relevant book chapters on the Worth Publisher's website. Web tests can be accessed at the following (off-campus) URL: http://bcs.worthpublishers.com/kolbfundamentals/.

**Tutorial assignments**

Assigned work for a given tutorial must be submitted during that tutorial. In the second and third tutorials, students will work in small groups on exercises related to essay writing and giving oral presentations. In the remaining 9 tutorial sessions, groups will give presentations (one group per tutorial, except in session 12 when two groups will present); each student (including those who are presenting that day) is expected to read the article being presented in advance of the tutorial, and submit a question for discussion at the beginning of that tutorial. Discussion questions will be marked on a 3-point scale.

**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.

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.

**Required readings:**

2. **Ten readings from the recent literature** (see below; available in the Psych2D03 Coursepack).

**Lecture topics, readings, and links to lecture outlines to be added to the course web page at least 1 day prior to each lecture, and 2 days prior**
starting in week 3 (password required):

**Week 1 (Jan 5-9): Introduction to Neuropsychology, and the organization of the nervous system.**


**Recommended background reading:** Chapters 1, 2 & 3 Kolb&Whishaw

**Week 2 (Jan 12-16): How neurons communicate, effects of drugs on the brain, and functional brain imaging.**


**Recommended reading:** Chapters 4, 5, 6, 7, Kolb&Whishaw

**Readings covered on tests:** Kolb & Whishaw Chapter 7, sections on Event-related potentials, magnetoencephalography, transcranial magnetic stimulation, functional magnetic resonance imaging

**Week 3 (Jan 19-23): Sensory-motor and cortical organization.**

Links to lecture outlines: Week3Part1.3perpage.pdf, Week3Part1.4perpage.pdf, Week3Part2.3perpage.pdf, Week3Part2.4perpage.pdf

**Recommended reading:** Chapters 8, 9, & 10, Kolb&Whishaw

**Readings covered on tests:** Chapter 10, from page 235 -- 'Multiple representations: Mapping Reality', to the end of the chapter.

**Week 4 (Jan 26-30): The occipital lobes.**

Links to lecture outlines: Week4.3perpage.pdf, Week4.4perpage.pdf

**Recommended readings:** Chapter 13, Kolb & Whishaw

**Readings covered on tests:** Chapter 13, Kolb & Whishaw, sections on A theory of occipital lobe function (up to p 328), Disorders of cortical function, and Visual Agnosia


**Week 5 (Feb 2-6): The parietal lobes.**

Links to lecture outlines: Week5Part1.3perpage.pdf, Week5Part1.4perpage.pdf, Week5Part2.3perpage.pdf, Week5Part2.4perpage.pdf

**Recommended reading:** Chapter 14, Kolb & Whishaw
**Readings covered on tests:** Chapter 14, page 348- mid-364, Kolb & Whishaw


**Week 6 (Feb 9-13): The temporal lobes.**

Links to lecture outlines: [Week6.3perpage.pdf](Week6.3perpage.pdf), [Week6.4perpage.pdf](Week6.4perpage.pdf)

**Recommended readings:** Chapter 15, Kolb & Whishaw

**Required reading:** Chapter 15, sections on "A Theory of Temporal Lobe Function" and "Symptoms of temporal lobe lesions"

**MIDTERM TEST: FRIDAY FEB 13th, 3:30-4:20 in CNH-104.**


**Week 7 (Feb 23-27): The frontal lobes.**

Links to lecture outlines: [Week7Part1.3perpage.pdf](Week7Part1.3perpage.pdf), [Week7Part1.4perpage.pdf](Week7Part1.4perpage.pdf), [Week7Part2.3perpage.pdf](Week7Part2.3perpage.pdf), [Week7Part2.4perpage.pdf](Week7Part2.4perpage.pdf)

**Recommended reading:** Chapter 16, Kolb & Whishaw

**Readings covered on tests:** Chapter 16, sections on A theory of frontal lobe function; and Symptoms of frontal lobe lesions -- up to but not including subsection "Symptoms associated with damage to the facial area".

**ESSAY OUTLINES DUE ON THIS WEEK'S TUTORIAL DATE**


**Week 8 (March 1-5): Memory.**

Links to lecture outlines:
[Week8Part1.3perpage.pdf](Week8Part1.3perpage.pdf), [Week8Part1.4perpage.pdf](Week8Part1.4perpage.pdf), [Week8Part2.3perpage.pdf](Week8Part2.3perpage.pdf), [Week8Part2.4perpage.pdf](Week8Part2.4perpage.pdf)

**Recommended reading:** Chapter 18, Kolb & Whishaw

**Readings covered in tests:** Chapter 18 except sections on The neural basis of implicit memory, Anatomy of the hippocampus, and A Case of Total Recall, Kolb & Whishaw


**Week 9 (March 8-12): Language.**
Week 10 (March 15-19): Emotion.

Links to lecture outlines:
Week10Part1.3perpage.pdf, Week10Part1.4perpage.pdf, Week10Part2.3perpage.pdf, Week10Part2.4perpage.pdf

Required reading: Chapter 20, all sections, Kolb & Whishaw


Week 11 (March 22-26): Spatial behaviour.

Links to lecture outlines:
Week11.pdf

Required reading: Chapter 21, except section on individual differences, Kolb & Whishaw


Week 12 (March 29 - April 2): Neurological disorders.

Links to lecture outlines:
Week12Part1.3perpage.pdf, Week12Part1.4perpage.pdf, Week12Part2.3perpage.pdf, Week12Part2.4perpage.pdf

Required reading: Chapter 26, sections on Vascular disorders, Traumatic head injury, Epilepsy, Headaches and Disorders of Sleep, Kolb & Whishaw

Essays due on this week's tutorial date

Week 13 (April 5-6): Psychiatric disorders.

Links to lecture outlines: Week13.3perpage.pdf, Week13.4perpage.pdf

**Required reading:** Chapter 27, sections on Schizophrenia and Dementia, Kolb & Whishaw


**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 and in hard copy so that it can be checked for academic dishonesty.
Related courses taught by Sue Becker

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