Neuroscience Lab Course Psych3L03

Instructor: Professor K. M. Murphy: Office - PC315
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            Department of Psychology, Neuroscience & Behaviour

Lectures: Tuesday 11:30-2:30 pm
Teaching Assistants: Matt King -- matthew.king24@gmail.com
                     Lilia Tcharnia -- tcharnl@mcmaster.ca

World Wide Web http://www.science.mcmaster.ca/Psychology/psych3l03

Outline:

Lectures, Discussions, Presentation:
• The theme for the course is the Development of the Brain Throughout the Life-Span. A series of 5 videos will be used to introduce the different stages of development.
• Sept 14, Part 1 -- Infant
• Sept 28, Part 2 -- Child, Special Video -- Fireside Chat with 2 Pioneers in Neuroscience
• Oct 26, Part 3 -- Adolescent
• Nov 16, Part 4 -- Adult
• Nov 23, Part 5 -- Aging
• After the video there will be a discussion about the issues raised in the video.
• Students will form groups and pick a topic from the video to research for the next class.
• The group will write a short paper (2 pages double-spaced) with an annotated reference list on their topic.
• These will be submitted by noon on Monday before class and posted on the class web page that afternoon.
• Students will read and grade the summaries before class.
• In the class each group will make a short presentation (5-10 minutes) of their research followed by a class discussion.
• The presentations will be graded by the all students, TAs & Professor.

Creative Problem Solving Exercises
• There will be 2 Creative Problem Solving lab exercises. These are designed to help you think about research questions and be able to form questions for an experiment and bigger questions for a program of research. Students will work in group and then present the results of their work at the end of the class.
• Sept 21 -- Part 1 Creative problem solving
• Sept 28 -- Part 2 Creative problem solving

Sheep brain dissection: test date Friday Oct 29.
• Starting Oct 5 - Oct 26.

Laboratory experiment: Lab Report Due Friday Dec 3.
• This year the topic for the laboratory experiment is the development of the cortex. You will work in groups of 2 to design an experiment, collect the data, and carry out appropriate
analyses. The group will write a lab report. We will discussion issues relevant to the experiment during each lecture and work together to design certain aspects of the experiments.

**Evaluations:**

- 5 research summaries/annotated reference list and presentations-- 10% each, total 40% (the lowest grade will not be included).
- Creative Problem Solving -- 5%
- Neuroanatomy practical test -- 25%
- Lab Report -- 25%
- Participation -- 5%

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- Final marks may be adjusted up or down, on an individual basis, in light of special circumstances and/or the student's overall performance in the course.
- Lab Reports handed in late will lose one letter grade for each day past the due date. Weekly group research papers will not be accepted after noon on the due date.

**Academic Integrity:**

- Attention is drawn to [http://registrar.mcmaster.ca/CALENDAR/year2003/sec_117.htm#ID11331](http://registrar.mcmaster.ca/CALENDAR/year2003/sec_117.htm#ID11331) Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty as found in the Senate Policy Statements distributed at registration and available in the Senate Office.

**Course Changes**

- If it becomes necessary to make changes to some part of the course during the term, reasonable notice and communication will be made with students in the class. The University reserves the right to change dates and/or deadlines etc. for any or all courses in the case of an emergency situation or labour disruption or civil unrest/disobedience, etc.