Neuroscience Lab Course Psych3L03

Instructor: Professor K. M. Murphy: Office - PC315
kmurphy@mcmaster.ca
office hour: Thursday 1-2pm
make an appointment here: https://bit.ly/2ke7svP
Department of Psychology, Neuroscience & Behaviour

Lectures: Tuesday 11:30-2:30 pm

Teaching Assistants: Keon Arbabi arbabik@mcmaster.ca
Ewalina Jeyanesan jeyanee@mcmaster.ca

Website: https://basecamp.com/1928877/projects/16819146#team

Outline:

Lectures, Discussions, Presentation:
- The theme for the course is Harnessing Neuroplasticity for Clinical Applications.
- Sept 3, Intro to translating neuroscience,
  - video -- Dr. Thomas Insel, https://www.ted.com/talks/thomas_insel_toward_a_new_understanding_of_mental_illness
  - Assignment 1: Identifying the Problem, Gap, Hook & Solution in research.
- Monday Sept 9 Assignment 1 Due
- Sept 10, Presentation/Discussion of PGHS neuroscience papers,
  - video Dr. Mriganka Sur, https://www.youtube.com/watch?v=jWohfroAVIo
  - Assignment 2: Autism & plasticity
- Monday Sept 16 Assignment 2 Due
- Sept 17, Presentation/Discussion of autism & plasticity assignment and pick the best paper.
  - video Dr. Ramirez & Liu, https://www.ted.com/talks/steve_ramirez_and_xu_liu_a_mouse_a_laser_beam_a_manipulated_memory?language=en
  - Sept 24, Assignment 3: if you had co-authored the best paper what would you do next?
- Monday Sept 30 Assignment 3 Due
- Oct 1, Presentation/Discussion of what would we do next?
- Oct 14, Mid-term Recess
  - Assignment 5: Super Duper Neuroscientist of the Year Award
- Monday Dec 2 Assignment 5 Due
- Dec 3, Presentation/Discussion of Super Duper Neuroscientist of the Year Award
- Description of Assignments
  - 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.
- These will be submitted to the class webpage by noon on Monday before class.
- Students will read and grade the written assignments before class.
- In class, each group will make a short presentation (~10 minutes) of their research.
- The presentations will be graded by all students, TAs & Professor.

**Sheep brain dissection: test date tba.**
- Sept 17 - Oct 29.

**Laboratory experiment: Lab Report Due Thursday Dec 5.**
- Students will work in pairs to analyze the data and write up a journal-style lab report.

**Evaluations:**
- 5 assignments: written and presentations-- 10% each, total 40% (lowest grade will be dropped).
- Neuroanatomy practical test -- 30%
- 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://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf](http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf) for the university academic integrity policy.

**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.