Instructor:
Deda Gillespie, PhD
PC 310

gilles@mcmaster.ca  type “PNB 4F03” in the subject line of any class-related communication
email will normally be returned within 48 hours
Office Hours:  Friday 10-11am, or by appointment

Teaching Assistant:
Graeme Moffat
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Course description:
An advanced seminar focusing on selected topics in biopsychology. Topics for discussion
selected in consultation with students and instructor, with focus on animal models of
neurobiological processes.

Course objectives:
The primary goal of this course is to learn to think deeply about neurobiology, to focus on
thinking both critically and creatively by delving into the primary research literature and
designing research projects. Students will also have the opportunity to develop collaborative
skills through group research projects and through group writing of grant proposals.

Required readings:
Students are expected to read in detail the 5 papers discussed in class in the month of January, as
well as the papers they present and critique in later portions of the course. Each student is
expected to at least skim all papers presented in the course. Groups may be questioned about the
details of any paper cited in their proposal’s reference list; thus each paper cited should have
been read critically by at least one student in the group. Papers will be made available in pdf
format one week before they are discussed in class. There are no required textbooks for this
class, though students may find it useful to peruse various texts during the course; consult with
instructor or TA for specific recommendations.

Important dates:
Jan 6       in-class exercise
Jan 19      proposed grant topics due, 8:30am
Feb 2       papers due for first round groups 1-3, 8:30am
Feb 9       papers due for first round groups 4-6, 8:30am
Feb 28      papers due for the second round of background reading, 8:30am
Mar 2       in-class exercise
Mar 13      grant proposals due for all groups, noon   (note different day and time!)
Mar 17      in-class exercise
Mar 21      grant critiques 1-3 due, 8:30am
Mar 28      grant critiques 4-6 due, 8:30am
Presentations:  (group)
In small groups, students will present papers relevant to the grant proposals they are developing. No more than two papers should be presented on a given day, and the paper(s) chosen for presentation must be submitted to the instructor by the published deadlines to avoid a reduction in grade. Groups are strongly encouraged to consult the instructor regarding their choice of paper(s) in advance of the deadline.

Paper reviews:  (independent)
Each student will be randomly assigned 4 papers to critically review. The written critique will be graded by the TA and the instructor, and a copy will also be given to the group presenting the paper. Students may also opt to critique at most one additional paper of their choice (selected from among the papers presented in class). If a student submits 5 critiques, the lowest score will be dropped in calculation of the final grade. Deadlines for additional critiques are the same as for the assigned critiques. Critiques are due at 8:30 am on the day the article is presented. Late critiques will not be accepted.

Grant reviews:  (independent)
Each student will be assigned 3 grant proposals to review. The written grant review will be graded by the TA and the instructor, and a copy (anonymous) will be given to the presenting group. Grant reviews are due at 8:30 am on the day of the grant presentation. Late reviews will not be accepted.

Grant Proposal:  (group)
Students will collaborate in small groups to develop grant proposals on topics chosen in consultation with the instructor. In these small groups, students will present background papers to the entire class, write a grant proposal, and present and defend their grant proposal to the entire class. On the final day of the course, the class will discuss the grant proposals collectively and will reach a decision about which grants to fund. Scores given by other students in the class will be factored in to the grant proposal’s final score. Each group is strongly encouraged to schedule at least one meeting with the instructor to discuss their grant proposal.

Participation:  (independent)
Attendance is not required, but students are expected to take an active part in discussions when present. Quality and relevance of contributions to the discussion will be rated more highly than overall time speaking. Students will also be asked to provide brief feedback on presentations to the presenting groups.

In-class exercises:  (independent)
These are short exercises designed to test your ability to think critically about science. During these exercises, you will be graded on your in-class participation or written response. The lowest grade of the three will be dropped.

Group work vs independent work:
Students are expected to develop and write all reviews of papers and reviews of grants independently. Reviews will be compared for evidence of group work. Inappropriate group
work will be treated as a case of academic dishonesty (see below); the review will receive a score of zero, and a written report will be submitted to the Office of Academic Integrity.

Students will work in teams to choose and present papers and to develop and write grant proposals. The entire group will receive the same score unless there is evidence to suggest that adjustment of individual scores would be more equitable. Assignments that will receive group scores include two paper presentations, one presentation of the final grant proposal and the written grant proposal (including the proposed topics). All group work should include a statement of contributions.

**Evaluation:**
- paper presentations 20%
- paper/grant critiques 25%
- grant proposal 30%
- participation 15%
- in-class exercises 10%

**Missed work:**
Students who miss an assignment or presentation due to illness or personal reasons need to petition the appropriate Associate Dean for relief within one week of the date of missed work. Students who have successfully petitioned for relief will be given reasonable opportunities to make up missed work. Any student forced to miss work should make every effort to fulfill group responsibilities as early as possible. For Faculty of Science students, information about petitioning for relief may be found on the page “Policy for Absence from School Due to Illness or Compassionate Reasons” at: http://www.science.mcmaster.ca/%7Eassociatedean/services/exemptions.html.

**Academic Integrity:**
All individuals in this course, as senior students at McMaster, are expected to understand what constitutes academic dishonesty, and to avoid entirely behaviors associated with academic dishonesty. Anyone who is at all uncertain what this entails should refer to McMaster’s Academic Integrity Policy at http://www.mcmaster.ca/senate/academic/ac_integrity.htm.

**Notes:**
The instructor reserves the right to alter the published schedule depending on special circumstances such as a change in enrolment. Students will be given ample warning of any changes.

Students who wish to record any part of the class session must obtain the prior consent of all individuals present.

Improper citation is a form of plagiarism and thus of academic dishonesty (see above). Submitted work that contains plagiarized portions will be assigned a grade of zero and a written report will be submitted to the Office of Academic Integrity.