Special Topics in Biopsychology, Psych 4F03
Winter, 2007

Instructor:
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All class-related email must include “PNB 4F03” in the subject line or it may not be read.
Email will normally be returned within 48 hours.
Office Hours: during tutorial, or by appointment (email to schedule)

Teaching Assistant:
Phil Gander
pgander@mcmaster.ca (include “PNB 4F03” in subject line)
Office Hours: during tutorial, or by appointment (email to schedule)

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. The course is designed to help students develop both critical and creative thinking by delving into the primary research literature and by designing research projects. Students will also practice collaborative skills through group research projects and through group writing of grant proposals.

Course logistics:
The lecture portion of this course meets Mondays 11:30-13:20 and Wednesdays 11:30-12:20 in PC 335. The 12 tutorials (Wednesdays 14:30-15:20, PC 335) have been scheduled in order to include a few team-building exercises, to cover additional (non-required) material helpful for developing the class projects, and to give teams time and space for group work. The instructor will also be available during tutorial sessions. Tutorials are scheduled for January 3 – March 28.

Required readings:
Students are expected to read in detail the papers discussed in class in January and February, as well as any papers they present or review in later portions of the course. Teams 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 team. Students will need at least to skim all grant proposals and will critically read 3 proposals (see below). Papers and proposals will be made available online in pdf format one week before they are discussed in class. There are no required textbooks for this class, though students may wish to peruse various texts (on reserve) during the course; consult with instructor for additional recommendations.

Important dates:
Jan 19 proposed grant topics due, noon
Feb 14 midterm examination
Feb 21 last day to consult instructor on paper choice for March presentations
Mar 23 grant proposals due for all groups, noon
April 4 mock study section meeting
There will be no final exam in this course.
Presentations: (team)

Each team will have the opportunity to make two presentations. In the first, teams will present papers relevant to their grant proposals and will lead an in-class exercise on further research directions. In order to avoid a reduction in presentation grade, teams must consult the instructor to choose an appropriate paper before February 21. The second talk will include a presentation and defense of the grant proposal.

Paper reviews: (independent)

1) In January and February, students will submit a brief (1 paragraph, maximum) written assignment for each paper discussed in class. Students may be asked to briefly summarize the paper, to pose further questions, or to comment in some other way on the paper. The 2 lowest scores will be dropped.

2) In March, each student will be assigned 2 papers to critically review. Students may opt to review at most one additional paper of their choice (selected from among the papers presented in class). If a student submits 3 reviews, the lowest score of the 3 will be dropped. Deadlines for additional reviews are the same as for the assigned critiques.

All reviews are due at 11:30am on the date of discussion. Late reviews will not be accepted.

Grant reviews: (independent)

Each student will be assigned 3 grant proposals to review. Grant reviews are due at 11:30am on the date of the grant presentation. Late reviews will be marked, but will be discounted one full letter grade for each day (or portion thereof) late. Students may opt to review at most one additional grant, in which case the lowest score will be dropped.

Grant Proposal: (team)

Students will collaborate in small teams to develop grant proposals on topics chosen in consultation with the instructor. In these teams, students will present background papers to the class, write a grant proposal, and present and defend their grant proposal in front of the class. The final day of the course will be a mock grant council meeting, in which the class will discuss the grant proposals collectively and will decide which grants to fund. Scores given by other students in the class will be factored in to the grant proposal’s final score. Each team is strongly encouraged to schedule a meeting with the instructor to discuss their grant proposal. Grant proposals not received by the listed deadline will receive a score of zero.

Participation: (independent)

Students are expected to take an active part in discussions and in-class exercises. Quality and relevance of contributions to the discussion will be rated more highly than overall time speaking. Students may expect to be asked to present a figure or to discuss background or conclusions for an assigned paper, and should expect to participate in exercises led by other students who are presenting. Students may also be asked to provide brief feedback to the teams that are presenting. Students who exhibit potentially disruptive behaviours will receive lower participation marks.

Exercises: (independent/group)

These independent or small-group exercises are designed to help students think critically and creatively about science. Students will be graded on participation or written response.

Midterm exam: (independent)

A short midterm exam will be administered on February 14. This will be a short-answer style exam based on the lectures and papers presented in the first half of the course. The purpose of
the exam is to help students understand the ideas and concepts they should be incorporating into their grant proposals. A review session will be given before the exam date.

**Team work vs independent work:**

Students are expected to develop and write all reviews of papers and 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. All members of a team will receive the same score unless there is evidence to suggest a more equitable distribution of individual scores. Assignments that will receive team scores include one paper presentation, the presentation of the final grant proposal and the written grant proposal (including the proposed topics). All team work must include a statement of contributions. Additionally, each member of the team will be required to submit evaluations of their own and other team members’ work.

**Evaluation:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>participation/exercises</td>
<td>25%</td>
</tr>
<tr>
<td>midterm exam</td>
<td>10%</td>
</tr>
<tr>
<td>presentations</td>
<td>15%</td>
</tr>
<tr>
<td>paper/grant reviews</td>
<td>20%</td>
</tr>
<tr>
<td>grant proposal</td>
<td>30%</td>
</tr>
</tbody>
</table>

Final grades will be altered only in the event of an incorrect calculation.

**Missed work:**

Students who miss an assignment or presentation due to illness or personal reasons must 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 team 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”

**Academic Integrity:**

All individuals in this course, as senior students at McMaster, are expected to understand what constitutes academic dishonesty, and to avoid entirely all behaviors that fall under this umbrella. Anyone who is uncertain what this entails should refer to McMaster’s Academic Integrity Policy at [http://www.mcmaster.ca/senate/academic/ac_integrity.htm](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 or a need to cover different material (based on the overall progress of the class). Any such changes will be both announced in class and posted on the course website. It is the student’s responsibility to check the course website regularly for updates: [http://psych.mcmaster.ca/4F03/4F03web.html](http://psych.mcmaster.ca/4F03/4F03web.html)

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

Students may not record any part of the class without prior consent of all individuals present.