Syllabus FALL 2016

Laboratory in Biological Psychology – 17366-PSYCH 4606 02

Instructor – Craig Ferris [c.ferris@neu.edu] (call for appointments, 617-373-3083)

Teaching Assistant – Prabarna Ganguly [ganguly.p@husky.neu.edu]

Meeting – Monday – Class held in 180 Nightingale Hall (2:50-5:40) with lab meetings in Mugar 13, Center for Translational NeuroImaging.

Overview

The laboratory training is focused on small animal magnetic resonance imaging (MRI). Students will be introduced to the basic principles and applications of MRI in neuroscience research. Classes will begin each day with a short discussion on different aspects of MRI ranging from BOLD imaging, pulse sequences, radiofrequency coils, data acquisition and data processing. **Students will not be working directly with animals.** Instead students will have the opportunity to observe awake animal imaging studies related to their assigned project. The major topic of discussion for this semester is traumatic brain injury. Students will be studying imaging data collected from rats exposed to mild concussions. Data will be collected from rats and analyzed for subtle changes in brain microarchitecture and functional connectivity. Students will be provided data from each of these analysis. With these data, students will be expected to write the major sections of a research paper, e.g., Introduction, Methods, Results, and Discussion, as part of their evaluation. Indeed, the course is geared toward scientific writing. As such

- **students will be writing throughout the course**

- **students will receive feedback and have opportunities to improve their writing**

Student Evaluation

Students will be graded on their class participation and proficiency in writing. Since the goal of the laboratory training is to generate a paper that could be submitted for publication in a peer-reviewed journal, there is a particular emphasis on issues related to plagiarism and scientific misconduct.

**Also**

- TRACE participation is expected.
- Students are advised to read the NU Academic Integrity Policy [http://www.northeastern.edu/osccr/academichonesty.html](http://www.northeastern.edu/osccr/academichonesty.html)
- Refer to the Blackboard for class assignments and up-dates.