366 Neurobiology of Learning and Memory **Fall 2003**

Instructor: Dr. Gould

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Office Hours: MWF 9:20-9:40; 10:30-11:10

MWF 9:40-10:30

Readings: Textbook, The Neurobiology of Memory, Yadin Dudai; Articles, to be handed out.

The goals of this class are to present and discuss issues in the neurobiology of learning and memory while developing writing and communication skills. The class will be a mixture of lectures and informal discussions of primary research articles. In addition, each student will write a paper on a topic related to the neurobiology of learning and memory and will give a 20 min presentation (with guidance from the instructor) on their topic. Students should have taken Behavioral Neuroscience, Cognitive Neuroscience, or equivalent.

Policies

Part of the class will be student presentations. For some students, this may be an aversive stimulus and thus as a measure of respect and because this is a seminar course, attendance will be part of the final grade.

The success of a seminar class is in part related to class participation. Students should come to class having read the appropriate material and for article discussions, students will have to email the instructor or drop off in the instructors mailbox (6^{th} floor) one question related to the article on the day before the article is to be discussed.

As part of the course students will write a paper on one topic in the area of the neurobiology of learning and memory. The instructor will aid in topic selection. The paper should be 5-10 pages long and should discuss issues and/or experiments related to the topic of interest. Students will be required to hand in a draft of the paper.

Students will prepare a 20 min presentation of their research paper. Students may use overheads, handouts, and/or PowerPoint presentations. To facilitate this process and make it less painful, students will meet with the instructor prior to the presentation.

Students will take a midterm examine, final exam, and have quizes

Deadlines and Exam dates are non-negotiable except for medical reasons, religious reasons, or emergencies. Written documentation will be required before any exception will be made.

Grading

Midterm exam	20%
Final exam	25%
Quizzes	10%
Paper	20%
Presentation	15%
Class participation	10%

(class participation includes submission of questions for articles and questions in class)

Attendance: For every five unexcused absences, the final grade in the course will be lowered by one unit (e.g., a B+ would become a B).

Any student who has a need for accommodation based on the impact of a disability should contact me privately to discuss the specific situation as soon as possible. Contact Disability Resources and Services at 215-204-1280 in 100 Ritter Annex to coordinate reasonable accommodations for students with documented disabilities.

Date	Topic	Reading	Deadlines
9/3	Intro. & History of Biopsych	Ch.1	
9/5	History of Psych & Neuroscience	Ch.2, Ch.10	
9/8	Neuroanatomy	Ch.3	
9/10	Cellular Physiology		
9/12	Psychopharmacology		
9/15	Genetics		Quiz
9/17	Learning and Plasticity	Ch.9	Talk about topics

9/19	Learning and Plasticity		
9/22-9/24	Neuroplasticity & Synaptogenesis	Ch. 8	
9/26	Literature Searches		
9/29	Writing papers & Choosing Topics		Topics due
10/1	Article on Synaptogenesis		Article question due 9/30
10/3-10/6	Cerebellar Based Learning	Ch.11	Quiz
10/8	Article on Cerebellar Based Learning		Article question due 10/7
10/10 - 10/13	Limbic System Based Learning	Ch.14	
10/15	Article on Limbic System Based Learning		Article question due 10/14
10/17	Review		
10/20	**Midterm Exam**		
10/22 - 10/24	Invertebrate Learning	Ch.4, Ch.5	
10/27	Review Examine & Discussion of paper writing		**1st Drafts due**
10/29	Article on Invertebrate Learning		Article question due 10/28
10/31 - 11/3	Cellular Models of Plasticity	Ch. 6	
11/5	Article on Cellular Models of Plasticity		Article question due 11/4
11/7 - 11/10	Aging & Alzheimer's Disease		Quiz
11/12	Article on Alzheimer's Disease		Article question due 11/10
11/14 – 12/10	Presentations		**Final Papers Due 4/25**

12/17 FINAL EXAM 8:30-10:30