THIS IS A PRELIMINARY SYLLABUS

V80/V23.0100 – Introduction to Neural Science – Fall 2007

Instructors

J. Anthony Movshon, movshon@nyu.edu, 1051 Meyer, (212) 998-7880.
TAs: to be assigned
All office hours are by appointment.

Lectures: MW, 2:00 to 3:15, 815 Meyer.

Recitations: All recitations meet from 4:55 to 6:10, M, T, W or R.

Text. *Neuroscience: Exploring the Brain,* 3rd edition, by Mark F. Bear, Barry W. Connors and Michael A. Paradiso; Baltimore: Lippincott Williams and Wilkins, 2006 ("BCP"). Supplementary readings may be distributed in class or via NYU Blackboard. In general it is a good idea to do the assigned readings before class because lectures will assume that you have some familiarity with the material. You will probably wish to read it again more carefully after lecture.

Many of the slides used in class are taken from *Principles of Neural Science*, 4th edition, by Eric R. Kandel, James H. Schwartz, and Thomas M. Jessell; New York, McGraw-Hill, 2000 ("KSJ"). Some of you may find this more advanced book a valuable source of supplementary readings, but I do not recommend purchasing a new copy as a new edition is planned for release soon.

Web. All course information will be distributed through NYU Blackboard (http://classes.nyu.edu). The latest version of this document, any additional readings, and web links to other material will be available on Blackboard.

Exams and grading. There will be two mid-semester exams and a comprehensive final. Exams 1 and 2 will each count for 25% of the final grade; the final exam will count for 50%. Study questions will be distributed before each exam. The mid-semester exams will be in class on October 10th and November 9th. The final will be a two-hour test scheduled during the normal exam period. Exams will all be in essay form.

Center for Neural Science office: 809 Meyer; (212) 998-7780. Prof. Movshon's assistant is Joanne Rodriguez (joanne@cns.nyu.edu), 809 Meyer, (212) 998-3917.

CNS undergraduate program administrator: Krista Davies, krista@cns.nyu.edu, 803 Meyer; (212) 998-8779.

Schedule of lectures and readings

Date	Topic	Readings
9/5	Introduction and history of neuroscience	BCP 1
9/10	Neurons and glia (*Aoki*)*	BCP 2
9/12	Membrane properties of the neuron	BCP 3
9/17	Action potential (*Reyes*)*	BCP 4
9/19	Neural transmission	BCP 4
9/24	Synaptic transmission	BCP 5
9/26	Synaptic integration	BCP 5, 6
10/1	Neurotransmitters and neuromodulators	BCP 6
10/3	Structure of the nervous system	BCP 7 and Appendix
10/8	Chemical control of the brain	BCP 15
10/10	***Exam 1***	
10/15	Chemical senses	BCP 8
10/17		BCP 9
10/22	Visual system 1 (*Shapley*)*	BCP 9
10/24	Visual system 2	BCP 10
10/29	Visual system 3	BCP 10
10/31	Auditory system 1	BCP 11
11/5	Auditory system 2 and vestibular system	BCP 11
11/7	Somatic sensory system (*Hawken*)*	BCP 12
11/12	***Exam 2***	
11/14	Motor control 1	BCP 13
11/19	Motor control 2	BCP 14
11/21	Motivation and emotion	BCP 16, 18
11/26	Language and attention	BCP 20, 21
11/28	Mental illness	BCP 22
12/3	Development and plasticity	BCP 23
12/5	Memory systems	BCP 24
12/10	Cellular and molecular basis of memory	BCP 25

Version of 3/26/07 12:32 PM

*Guest lecturer