

NRO69H3: The synaptic organization of the brain,
Mondays 7-9 pm, HW 214

Complete Course Material: Lectures 1-10.ppt and 1-10.doc

Additional References: The Synaptic Organization of the Brain, Gordon M. Shephard
Principles of Neural Science (4th ed.), Kandel, Schwartz, and Jessell

Instructor: Steven Duffy Ph.D.

Office Hours: Mondays, 3-5 pm in P103-101; 6:30-7:00 in HW214

Outline

- Sept. 13 Organizational principles of the mammalian CNS
- Sept. 20 Ionic basis of the action potential and synaptic potentials
Presynaptic mechanisms of transmitter release
- Sept. 27 Synaptic integration and neuronal firing properties
- Oct. 4 Techniques for measuring synaptic activity
- Oct. 18 Synaptic organization of the cerebellum
- Oct. 25 Term test 1 (30%) on lectures 1-4**
- Nov. 1 Synaptic organization of the basal ganglia
- Nov. 8 Synaptic organization of the hippocampus
- Nov. 15 Synaptic plasticity and learning
- Nov. 22 **Term test 2 (30%) on lectures 5-7**
- Dec. 29 Synaptic organization of the thalamus
- Dec 6. Extrasynaptic receptors and volume transmission
Cortical plasticity and cognition

Mark Breakdown: Term test 1: 30%
Term test 2: 30%
Final (culminative): 40%