

## **Neurobiology 1**

## Membranes, Neurons, Networks and Brains

Ad Aertsen, Karl-Friedrich Fischbach, Friedrich Metzger WinterSemester 2010-2011

Topics		
1. Introduction	AA	27 Oct 2010
2. Signaling in the nervous system	AA	03 Nov 2010
3. Ion channels and signaling, currents and membrane potential, action potential generation	AA	10 Nov 2010
4. Action potential propagation, synapses	AA	17 Nov 2010
5. Networks in the brain	AA	24 Nov 2010
6. Neural Coding	AA	01 Dec 2010
7. Synaptic plasticity – Learning and memory	FM	08 Dec 2010
8. Synaptic plasticity – Synaptogenesis and molecular mechanisms	FM	15 Dec 2010
9. Synaptic plasticity – Rules of plasticity and learning	FM	22 Dec 2010
10. Genetic programming of inborn behaviour	KF	12 Jan 2011
11. Neural circuits of learning in Drosophila	KF	19 Jan 2011
12. Genetic dissection of aggression in invertebrates	KF	26 Jan 2011
13. Cortical dynamics – Variability and precision	AA	02 Feb 2011
14. Neural coding and decoding – Towards Brain- Machine Interfaces	AA	09 Feb 2011