

## Master “Interdisciplinary Neuroscience”

### **Lecture** “Neuroscience I – selected topics ” WS 2011/12

Monday, 16:15 – 18:00, Wednesday, 08:15 – 10:00  
venue: Biologicum, Campus Riedberg, Bio -1.203 (basement) , lecture hall 2

Topics of the lecture are structured according to the chapters in the textbook Bear et al: “Neuroscience: Exploring the brain”.

Additional literature to the lectures: Squire et al. – Fundamental neuroscience  
For human brain anatomy (lecture 12-14): Deller/Sebesteny - Fotoatlas Neuroanomie, Elsevier

Date		Lecturer	Topic
Wed, 19.10.11	Lecture 1 Chapter 1,2	Zimmermann	Neuroscience: Past, Present, and Future
Mo, 24.10.11	Lecture 2 Chapter 1,2	Zimmermann	Neurons and Glia
Wed, 26.10.11	Lecture 3 Chapter 3,4	Roeper	The Neuronal Membrane at Rest/The Action Potential
Mo, 31.10.11	Lecture 4 Chapter 3,4	Roeper	The Neuronal Membrane at Rest/The Action Potential
Wed, 02.11.11	Lecture 5 Chapter 5,6	Klein	Synaptic Transmission / Neurotransmitter Systems
Mo, 07.11.11	Lecture 6 Chapter 5,6	Klein	Synaptic Transmission / Neurotransmitter Systems
Wed, 09.11.11	Lecture 7 addition	Kössl	Phylogeny and Evolution of Nervous Systems
Mo, 14.11.11	Lecture 8 Chapter 9,10	Peichl	The Eye /Central Visual System
Wed, 16.11.11	Lecture 9 Chapter 9,10	Peichl	The Eye /Central Visual System
Mo, 21.11.11	Lecture 10 Chapter 8	Kössl	The Auditory, Vestibular and Somatosensory Systems
Wed, 23.11.11	Lecture 11 Chapter 11,12	Kössl	The Auditory, Vestibular and Somatosensory Systems
Mo, 28.11.11	Lecture 12 Chapter 7 + Appendix	Deller	The Structure of the Nervous System /Human Neuroanatomy
Wed, 30.11.11	Lecture 13 Chapter 7 + Appendix	Deller	The Structure of the Nervous System /Human Neuroanatomy
Mo, 05.12.11	Lecture 14 Chapter 7 + Appendix	Deller	The Structure of the Nervous System /Human Neuroanatomy

<b>Wed, 07.12.11</b>	Lecture 15 Chapter 8	<b>Grünewald</b>	The Chemical Senses
<b>Mo, 12.12.11</b>	Lecture 16 Chapter 13,14	<b>Hilker</b>	Control of Movement
<b>Wed, 14.12.11</b>	Lecture 17 Chapter 13,14	<b>Hilker</b>	Control of Movement
<b>Mo, 19.12.11</b>	Lecture 18 Chapter 15	<b>Klein</b>	Chemical Control of the Brain and Behavior
<b>Wed, 21.12.11</b>	Lecture 19 Chapter 16,17,18	<b>Roeper</b>	Motivation, Emotion, Sex and Brain
<b>Mo, 09.01.12</b>	Lecture 20 Chapter 16,17,18	<b>Roeper</b>	Motivation, Emotion, Sex and Brain
<b>Wed, 11.01.12</b>	Lecture 21 Chapter 16,17,18	<b>Roeper</b>	Motivation, Emotion, Sex and Brain
<b>Mo, 16.01.12</b>	Lecture 22 Chapter 19	<b>Stehle</b>	Brain Rhythms and Sleep
<b>Wed, 18.01.12</b>	Lecture 23 Chapter 21	<b>Gaese</b>	Attention
<b>Mo, 23.01.12</b>	Lecture 24 Chapter 20	<b>Kössl</b>	Language
<b>Wed, 25.01.12</b>	Lecture 25 Chapter 22	<b>Uhlhaas</b>	Mental Illness
<b>Mo, 30.01.12</b>	Lecture 26 Chapter 23	<b>Acker-Palmer</b>	Wiring the Brain
<b>Wed, 01.02.12</b>	Lecture 27 Chapter 24,25	<b>Grünewald</b>	Neurobiology of Learning and Memory
<b>Mo, 06.02.12</b>	Lecture 28 Chapter 24,25	<b>Grünewald</b>	Molecular mechanisms of Learning and Memory formation

***Exam: Friday, 10. February 2012, 10:00h, Bio -1.203 (basement) , lecture hall 2***