Esser	Essentials in Neuroscience - Lectures									
Identificationn umber		Workload	Creditp oints	Term ofstudying		Frequencyofocc urence		Duration		
MN-B-N 1		180 h	6 CP	1 <sup>st</sup> or higher term of studying		Winter term		15 weeks		
1	Type of	lessons		Contact times	Self-stu	udy times	Inten	ded group size*		
	Lectures			49 h	138 h	approx. 50-70		ох. 50-70		
2	Aims of the module and acquired skills									
	Students	Students who successfully completed this module								
	<ul> <li>have acquired an understanding of neural functions and mechnisms from the cellular behavioral level</li> <li>have acquired in-depth knowledge of important concepts in the neurosciences</li> </ul>							e cellular to the		
								es		
	•	will be in a pos	ition to access future developments in the neurosciences							
	have acquired the ability to form and test hypotheses in the neurosciences									
3	Contents of the module  Neuroanatomy and cytology Brain architecture Ion channels and electrical properties of neurons Neural signaling Circuit function Motor control Sensory systems Learning and memory Neurodegeneration and -regeneration Neuroendocrinology and neuromodulation Computational neuroscience Neuropathology Neural development Enterorereception and control of homeostasis Behavior									
4	Teaching/Learning methods									
-		Lectures								
5	Requirements for participation  Enrollment in the Master's degree course "Biological Sciences" or in the Master's degree course "Experimental and Clinical Neuroscience"									
	Additional academic requirements									
	The know required.	•	obiology or	n the level of a genera	l biology	text book (e.g	. Camp	obell or Purves) is		

## Essentials in Neuroscience - Lectures (MN-B-N 1) continued

6	Type of module examinations					
	Two hours written examination about topics of the lectures (100 % of the total module mark)					
7	Requisites for the allocation of credits					
	Written examination at least "sufficient"					
8	Compatibility with other Curricula*					
	Master's degree course "Experimental and Clinical Neuroscience"					
9	Significance of the module mark for the overall grade					
	7.5 % of the overall grade					
10	Module coordinator					
	PD Dr. Joachim Schmid, phone 470 6135, e-mail: joachim.schmidt@uni-koeln.de					
11	Additional information					
	Participating faculty: Prof. Dr. S. van Albada, PD Dr. B. Altenhein, Prof. Dr. A. Büschges, Prof. Dr. S. Daun, Prof. Dr. H. Endepols, Dr. M. Gruhn, Prof. Dr. K. Ito, Prof. Dr. P. Kloppenburg, Prof. Dr. T. Korotkova, Prof. Dr. M. Nawrot, Prof. Dr. R. Predel, Dr. T. Riemensperger, Dr. V. Rostami, PD Dr. J. Schmidt					
	Literature:					
	<ul> <li>Information about textbooks and other reading material will be given on the ILIAS representation of the course (https://www.ilias.uni-koeln.de/ilias/goto_uk_crs_3516839.html)</li> </ul>					
	General time schedule: Weeks 1-14: Tue. and Thu. from 11:00 to 12:30 a.m.; Week 15 (MonFri.): Preparation for the written examination					
	Introduction to the module: Novermber 03, 2020 at 11:00 a.m. online (further information/link will be sent to your Smail-Account); for preparation to the module before this introduction see ILIAS link under literature.					
	<b>Written examination:</b> February 19, 2021, second/supplementary examination March 19, 2021; the latter date may vary if students and module coordinator agree. More details will be given at the beginning of the module.					

<sup>\*</sup> Depending on how many students from other subject areas (and if indicated also from other master's degree courses, see 5) choose this module.