<table>
<tr><td colspan="7">Essentials in Neuroscience - Lectures</td></tr>
<tr><td colspan="2">Identificationnumber

MN-B-N 1</td><td>Workload

180 h</td><td>Creditpoints

6 CP</td><td colspan="2">Term ofstudying

1st or higher term of studying</td><td>Frequencyofoccurence

Winter term</td><td>Duration

15 weeks</td></tr>
<tr><td>1</td><td colspan="3">Type of lessons
Lectures</td><td>Contact times
49 h</td><td>Self-study times
138 h</td><td colspan="2">Intended group size*
approx. 50-70</td></tr>
<tr><td>2</td><td colspan="7">Aims of the module and acquired skills
Students who successfully completed this module …
• have acquired an understanding of neural functions and mechnisms from the cellular to the behavioral level
• have acquired in-depth knowledge of important concepts in the neurosciences
• will be in a position to access future developments in the neurosciences
• have acquired the ability to form and test hypotheses in the neurosciences</td></tr>
<tr><td>3</td><td colspan="7">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</td></tr>
<tr><td>4</td><td colspan="7">Teaching/Learning methods
• Lectures</td></tr>
<tr><td>5</td><td colspan="7">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 knowledge of neurobiology on the level of a general biology text book (e.g. Campbell or Purves) is required.</td></tr>
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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: • 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) General time schedule: Weeks 1-14: Tue. and Thu. from 11:00 to 12:30 a.m.; Week 15 (Mon.-Fri.): 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. Written examination: 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.

* Depending on how many students from other subject areas (and if indicated also from other master´s degree courses, see 5) choose this module.