

Module Handbook

TUK MODHB Homepage

Course BIO-NPH-05-K-7

Molecular Cell and Neurobiology (L, 12.0 LP)

Course Type

SWS	Type	Course Form	CP (Effort)	Presence-Time / Self-Study
-	L	Practical course	12.0 CP	160 h 200 h
(L)			12.0 CP	160 h 200 h

Basedata

SWS	L
CP, Effort	12.0 CP = 360 h
Position of the semester	1 Sem. in WiSe
Level	[7] Master (Advanced)
Language	[EN] English
Lecturers	Maritzen, Tanja, Prof. Dr. (PROF DEPT: BIO)
Area of study	[BIO-NPH] Naophysiology
Lifecycle-State	[NORM] Active

Contents

This course aims at introducing students to modern methods of cell and neurobiology with a focus on vesicular membrane protein transport, a process which is equally crucial for neurotransmitter release and synaptic plasticity. To familiarize students with literature research and experimental design, we will start by handing out research questions which we want to address in the course. Students are then asked to find an experimental strategy and protocol to address the given question and to present their results in our introductory seminar. The practical course work will be performed in small teams of 2-(3) students under the supervision of a Ph.D. student. Methodologically, we will employ for example different assays to analyze endocytic events and their consequences including multi-colour live cell microscopy. Following up on their experimental

work, students will present their results as a powerpoint presentation in front of the group and prepare a protocol.

Requirements for attendance (informal)

None

Requirements for attendance (formal)

None

References to Course [BIO-NPH-05-K-7]

Course-Pool	Name
[BIO-VM_MCB-KPOOL-7]	Advanced Practical MCB
[BIO-VM_Neuro-KPOOL-7]	Advanced Practical Neuro