

List of elective modules with optional courses 2026 *update: 04.03.2026*

Elective Module Subject Area A: Basic Neuroscience

- **A9** Multi-electrode recordings of the dopamine system (FB16 & FB12) [Vogel/Röper/Schneider](#)
- **A10** Neurophysiology and Behaviour (FB 15) [Grünwald](#)
- **A12** The Neuro-Vascular Interface (FB 16) [Liebner](#)
- **A14** Genetics and Epigenetics of Neurogenesis and Gliogenesis (FB 16) [Schulte](#)
- **A15** Recording neuronal activity in freely behaving animals (FB 16) [Sigurdsson](#)
- **A21** Cellular, molecular and systemic Neurobiology in mouse and zebrafish (FB15) [Kirchmaier/Acker-Palmer](#)
- **A23** Cellular and molecular mechanisms in neurovascular disorders (FB15) [Hefendehl](#)
- **A24** Deciphering brain activity during natural behaviour in real time (ESI/FB15) [Havenith/Schölvinck](#)
- **A25** Neuroscience of Navigation and Self-Motion (ESI/FB15) [Laurens](#)
- **A26** Analysis of Social Networks (MPIBR/FB15) [Barker](#)
- **A28** Sensorimotor behavior tests in mice – data acquisition and analysis (FB 16) [Aswendt](#)

Elective Module Subject Area B: Clinical Neuroscience

- **B4** Plasticity in Hippocampus – Morphology, Physiology, and Clinical Relevance (FB16) [Hanuske/Jungenitz/Bas Orth/Deller](#)
- **B6** Experimental Brain Tumor Therapy (FB16) [Kögel](#)
- **B8** Clinical Neuroimaging (FB16) [Weidauer \(Hattingen, Polkowski\)](#)
- **B9** Clinical Auditory Neuroscience (FB 16) [Baumann](#)
- **B10** Experimental and Translational Psychiatry (FB16) [Slattery/Freudenberg](#)
- **B11** Neurobiological human cell models (FB 16) [Haslinger](#)
- **B12** Neuroimaging Biomarkers in Psychiatry (FB 16) [Ecker](#)
- **B13** Translational Neuro-Oncology Research (FB 16) [Hau](#)
- **B14** Computational Translational Psychiatry (FB 16) [Chiocchetti](#)
- **B15** Psychotherapy Research in Acute Psychiatry (FB 16) [Oertel](#)
- **B16** Machine Learning in Neurology (FB 16) [Rosenow, Stöber](#)

Elective Module Subject Area C: Cognitive and Computational Neuroscience

- **C1** Modern non-invasive Methods in Human Cognition research (FB16) [Kaiser](#)
- **C4** Virtual Hippocampus – Introduction to Computational Neuroscience (FB 16) [Jedlicka](#)
- **C7** Cognitive Neuroscience – Higher Cognitive Functions (FB05) [Tavano](#)
- **C8** Systems Neuroscience – Sensorimotor and Cognitive Networks (FB 16) [Kell](#)
- **C10** Computational Neuroanatomy – quantitative analysis and modelling (ESI/FB16) [Cuntz](#)
- **C11** Computational Modeling of Neuronal Plasticity (FIAS/FB 15) [Triesch](#)
- **C15** Developmental Cognitive Neuroscience (FB05) [Shing](#)
- **C16** Cognitive and perceptual processes in the human brain (ESI) [Rademaker](#)
- **C17** Cognitive and Neural Dynamics (CANDy) (FB16) [Michalareas](#)

Elective Module Subject Area D: Applied Neuroscience

- **D1** Behavioural Biology in Zoos (FB15) [Dierkes](#)
- **D2** Attention analysis of students' media use via eye-tracking (FB16) [Weber](#)