neu220 - Neurosensory Science and Behaviour - Part B

Module label
Neurosensory Science and Behaviour - Part B

Module code
neu220

Credit points
6.0 KP

Workload
180 h

Used in course of study
- Master's Programme Biology > Background Modules
- Master's Programme Neuroscience > Background Modules

Contact person
Module responsibility
- Christiane Margarete Thiel

Authorized examiners
- Alle hier genannten

Module counseling
- Carsten Gießing

Entry requirements
Skills to be acquired in this module

++ Neurosci. knowlg. + Expt. methods Independent research + Scient. literature + Social skills
++ Interdiscipl. knowlg. Maths/Stats/Progr. + Data present./disc. + Scientific English Ethics

Upon successful completion of this course, students
- know the fundamentals of neurotransmission
- know the basic neural mechanisms underlying attention, learning, emotion, language and executive functions
- understand the relationship between disturbances in neurotransmitter systems, cognitive functions and psychiatric disease
- know the principles of drug treatment for psychiatric disorders
- have in-depth knowledge in selected areas of these topics
- are able to understand, explain and critically assess neuroscientific approaches in animals and humans
- are able to understand and critically assess published work in the area of cognitive neuroscience

Module contents
The lecture "Introduction to Cognitive Neuroscience" gives a short introduction into neuroanatomy and cognitive neuroscience methods and then covers different cognitive functions.
Lecture topics:
- History of cognitive neuroscience
- Methods of cognitive neuroscience
- Attention
- Learning
- Emotion
- Language
- Executive functions.

The supervised excersise either deepens that knowledge by excersises or discussions of recent papers/ talks on the respective topic covered during that week.

The lecture "Psychopharmacology" illustrates the connection between neurotransmitters and behaviour and its links to psychiatric disease. The lecture contains several interactive parts to consolidate and critically evaluate the acquired knowledge.
Lecture topics:
- Introduction to Terms and Definitions in Drug Research
- Dopaminergic and Noradrenergic System
- Cholinergic and Serotonergic System
- GABAergic and Glutamatergic System
- Addiction
- Depression
- Schizophrenia
- Anxiety
- Alzheimer's Disease

Reader's advisory

Links
Language of instruction
English

Duration (semesters)
1 Semester

Module frequency
jährlich
Module capacity
Reference text
Course in the second half of the semester
Regular active participation is required to pass the module.
Modulart
je nach Studiengang Pflicht oder Wahlpflicht
Lern-/Lehrform / Type of program
Vorkenntnisse / Previous knowledge
Examination
Final exam of module
as agreed, usually in the break after the winter
Type of examination
100% written exam (content of the lectures)
Time of examination
as agreed, usually in the break after the winter
term
Course type
Lecture
Exercises
Comment
SWS
Frequency
Workload attendance
3.00
1.00
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42 h
14 h
42 h
56 h