neu540 - Neural Basis of Perception

Module label: Neural Basis of Perception
Module code: neu540
Credit points: 15.0 KP
Workload: 450 h
Used in course of study: Master's Programme Neuroscience > Research Modules
Contact person: Module responsibility
Jutta Kretzberg
Authorized examiners
Alle hier genannten
Module counseling
Georg Martin Klump
Henrik Mouritsen
Michael Winklhofer

Entry requirements: attendance in pre-meeting, priority is given to students who attended at least one of the background modules listed as "recommended in combination with"


Students perform individual research projects to learn:

- planning, performing and analyzing experiments and / or simulations
- working with scientific background literature on the specific context of the project
- oral presentation and discussion of backgrounds and results in the lab seminar
- write a scientific report
- prepare and present a scientific poster

Module contents: Module can serve as preparation for a Master's thesis.
Introductory lecture and seminar (either blocked or parallel to lab work) plus 6 weeks of small-group lab projects, participating in the supervisor's ongoing research, and in the respective group seminar. There are four options for the lab projects:
Option 1: Navigation mechanisms in nocturnal bird migration (Mouritsen) comprises (i) lecture "Bird migration", (ii) participation in group seminar, and (iii) a laboratory project "Navigation mechanisms in nocturnal bird migration" (flexible timing); including participation in investigations of navigation mechanisms in migratory birds (project focussing on behavioural biology, molecular biology or neuroanatomy).
Option 2: Invertebrate somatosensory system (Kretzberg), includes participation in group seminar, journal club and laboratory project (all flexible timing).
Option 3: Central auditory mechanisms (Klump), includes introductory block course "Fundamentals of Auditory Physiology" (one week at start of winter semester) , participation in group seminar and a laboratory project (flexible timing)
Option 4: Magnetic field perception (Winklhofer), includes participation in group seminar, journal club and laboratory project (all flexible timing).


Links:

Language of instruction: English
Duration (semesters): 1 Semester
Reference text

- Please note that different options have mandatory course components at different times.
- Priority for admission is given to students who attended at least one of the background modules listed as

"recommended in combination with"

- Participation in a joint poster presentation of concurrent research modules is highly recommended.

**Module level**
MM (Mastermodul)

**Modulart**
Wahlpflicht

**Lern-/Lehrform / Type of program**

<table>
<thead>
<tr>
<th>Course type</th>
<th>Comment</th>
<th>SWS</th>
<th>Frequency</th>
<th>Workload attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td></td>
<td>1.00</td>
<td></td>
<td>14 h</td>
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<tr>
<td>Seminar</td>
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<td>Projektorientiertes Modul</td>
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<td>WiSe</td>
<td>112 h</td>
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**Total time of attendance for the module**
140 h