psy270 - Functional MRI Data Analysis

Module label: Functional MRI Data Analysis
Module code: psy270
Credit points: 9.0 KP
Workload: 270 h
Used in course of study:
- Master's Programme Neurocognitive Psychology > Master module
Contact person:
Module responsibility
- Carsten Gießing

Entry requirements:
Enrolment in Master's programme Neurocognitive Psychology.

Skills to be acquired in this module:
Goals of module:
Students will learn the basics about planning and performing a neuroimaging study. They will focus on the statistical and methodological background of functional neuroimaging data analysis and analyse a sample functional MRI data set.

Competencies:
- ++ experimental methods
- ++ statistics & scientific programming
- + data presentation & discussion
- ++ group work

Module contents:
Part 1: Functional MRI data analysis (lecture)
Part 2: Planning, performance and analysis of functional neuroimaging studies using MATLAB-based software (seminar)
Part 3: Hands-on fMRI data analysis with SPM (practical course)

Reader's advisory:

Links:
Language of instruction: English
Duration (semesters): 1 Semester
Module frequency: The module will be offered every summer term.
Module capacity: 15 (The remaining places are reserved for Biology and Neuroscience students.)
Reference text:
Since the module is primarily offered for the Master's programme Biology it has to be offered as a blocked course. Please contact us if you are interested in the module but have problems with interfering other courses.

PLEASE NOTE:
We strongly recommend to take either psy170, psy270, psy275, psy280, or psy220 to gain methodological competencies (EEG, fMRI, TBS, HCI) that are needed for most practical projects and Master's theses!

Modullevel: MM (Mastermodul / Master module)
Modulart: Wahlpflicht / Elective
Lern-/Lehrform / Type of program:
Part 1: lecture; Part 2: seminar; Part 3: practical course
Vorkenntnisse / Previous knowledge:
Examination:
Final exam of module:
Time of examination: end of summer term
Type of examination:
- Oral or written examination
- Bonus for active participation (e.g. presentations, creating study material for other participants, tandem learning or oral contributions)
Course type:
Lecture:
Comment: 2.00
Frequency: SuSe
Workload attendance: 28 h
<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>Practical</td>
<td></td>
<td>4.00</td>
<td>SuSe</td>
<td>56 h</td>
</tr>
<tr>
<td>Seminar</td>
<td></td>
<td>1.00</td>
<td>SuSe</td>
<td>14 h</td>
</tr>
</tbody>
</table>

**Total time of attendance for the module**

98 h