neu720 - Statistical programming in R

Module label: Statistical programming in R
Module code: neu720
Credit points: 6.0 KP
Workload: 180 h
   (1.5 SWS Lecture (VO) Total workload 68h: 28h contact / 20h background reading / 20h exam preparation 2.5 SWS Supervised exercise (UE): Total workload 113h: 28h contact / 20h background reading / 65h exercise solving)

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

Contact person
Module responsibility
   - Fabian Otto-Sobotka

Authorized examiners
   - Fabian Otto-Sobotka

Entry requirements
Skills to be acquired in this module
   + Social skills
   + Interdiscipl. knowlg.
   ++ Maths/Stats/Progr.
   + Scientific English

students learn the use of the software R in application scenarios
students learn to actively "speak" the programming language R
students practice statistical data analysis with R

Module contents
The lecture gives an intuitive introduction into the use of the statistics software R. We start by introducing the basic handling of R and the syntax of its programming language. We use those to obtain the first statistical analyses from R. The next important step is to create informative graphics to represent the statistical results. Finally, we look into programming concepts that allow for more complex statistical analyses.

Reader's advisory
R Core Team - R: A language and environment for statistical computing (Reference Manual)

Links
Language of instruction: English
Duration (semesters): 1 Semester
Module frequency: annually, summer term
Module capacity: 24
Reference text: Recommended previous knowledge / skills: basic statistical knowledge including regression analysis
Modulelevel: ---
Modulart: je nach Studiengang Pflicht oder Wahlpflicht
Lern-/Lehrform / Type of program: basic statistical knowledge including regression analysis

Examination
Final exam of module: after the course
Type of examination: practical exercise

Course type
   Lecture: 2.00 SWS
   Exercises: 2.00 SWS

Time of examination
   Final exam of module: after the course
Type of examination
   practical exercise

Workload attendance
   Lecture: 28 h
   Exercises: 28 h

Total time of attendance for the module: 56 h