neu790 - Communicating Neuroscience

**Module label**
Communicating Neuroscience

**Module code**
neu790

**Credit points**
3.0 KP

**Workload**
90 h
(28 h contact / 62 h individual reading and preparing discussion questions)

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

**Contact person**
Module responsibility
- Jutta Kretzberg

**Authorized examiners**
- Jutta Kretzberg
- Martin Greschner
- Jannis Hildebrandt

**Entry requirements**
- Skills to be acquired in this module
  + Neurosci. knowlg.
  + Independent research
  ++ Scient. Literature
  ++ Social skills
  + Interdiscipl. knowlg.
  ++ Data present./disc.
  + Scientific English
  ++ Ethics

Upon successful completion of this course, students will have thought about and discussed in depth scientific, social and ethical aspects of neuroscience.

Critical reading of neuroscience literature:

- identify article type and audience
- summarize scientific contents
- identify strengths and weaknesses of methods, conclusions etc.
- put into scientific context
- discuss manuscript style
- discuss social and ethical context and implications of the study

Critical discussion of own studies:

- present own results in a way that is appropriate for the target audience
- put own studies into the context of scientific literature
- acquire additional knowledge about a broader field of research

**Module contents**

The overall goal of critical discussion of neuroscientific results in a scientific, social and ethical context can be achieved by different options: - Option 1: Seminar 'Neuroscience Journal Club': All students read and discuss 12 published papers (one each week). Different fields of neuroscience (e.g. molecular, cellular, behavioral, computational) will be covered with one classical and one recent paper each. Papers and questions about each paper will be provided prior to the start of the seminar. Students prepare answers to these questions independently and discuss their answers during the seminar. The module is passed when a student actively participated in the discussion of at least 10 papers. - Option 2: Written report on a neuroscientific topic of the student's choice, based on scientific literature, e.g. in the context of an independent student study group. The report should discuss scientific results in a scientific and a social / ethical context. - Option 3: Active participation in a scientific conference, workshop, summer school etc: Participation in a scientific conference, workshop, summer school etc. lasting a minimum of 3 full days can be credited with 3 ECTS, if the student presents own scientific results (poster, talk) obtained, e.g., in a research module or Master thesis. - Option 4: Participation in at least 20 scientific presentations (e.g. IBU / DfN colloquium, Hanse lecture neuroscience) and submission of a short (1 page) written summary of each talk. - For
other individual options (e.g. teaching in neuroscience) ask the module organizer.

**Reader’s advisory**

Option 1 (seminar): List of 12 published papers will be provided prior to the course. All students are required to read at least 10 of those.

Other options: dependent on the scientific topic

Background neuroscience textbooks, e.g.:
Galizia, Lledo ‘Neuroscience – From Molecule to Behavior’, 2013, Springer
Nicholls et al. ‘From Neuron to Brain’, 5th edition 2012, Sinauer

**Links**

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<th>Language of instruction</th>
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<td>Duration (semesters)</td>
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<td>Module frequency</td>
<td>every semester (seminar during winter semester, other option any time)</td>
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