neu750 - Laboratory Animal Science

Module label: Laboratory Animal Science
Module code: neu750
Credit points: 6.0 KP
Workload: 180 h
Used in course of study:
- Master's Programme Neuroscience > Skills Modules

Module responsibility
- Christine Köppl

Authorized examiners:
- Alle hier genannten

Module counseling:
- Ulrike Langemann
- Georg Martin Klump
- Arne Nolte
- Gabriele Gerlach

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 relevant EU legislation governing animal welfare and are able to explain its meaning in common language
- understand and are able to critically discuss salient ethical concepts in animal experimentation, such as the three Rs and humane endpoint.
- have basic knowledge of the biology and husbandry of laboratory animal species held at the University of Oldenburg (rodents and birds)
- are able to critically assess the needs and welfare of animals without compromising scientific integrity of the investigation
- have practical skills in handling small rodents and birds
- have profound knowledge of anaesthesia, analgesia and basic principles of surgery.
- have practised invasive procedures and euthanasia.

NOTE: These objectives aim to satisfy the requirements for EU directive A „Persons carrying out animal experiments” and EU directive D „Persons killing animals” for rodents, birds and fish. We aim to obtain accreditation by the Federation of European Laboratory Animal Science Associations (FeLaSa) by mid-2017.

Module contents

Background knowledge on:
- Legislation, ethics and the 3Rs
- Scientific integrity
- Data collection
- Basic biology of rodents, birds and fish
- Husbandry, and nutrition of rodents, birds and fish
- Animal Welfare
- Health monitoring
- Pain and distress
- Euthanasia

Practical procedures will first be demonstrated, important aspects will then be practiced under supervision by every participant:
- Handling and external examination of mouse, gerbil, zebra finch, chicken, zebra fish
- Administration of substances, blood sampling
- Euthanasia and dissection
- Transcardial perfusion
- Anaesthesia and surgery

Reader’s advisory

"LAS interactive“ internet-based learning platform
<table>
<thead>
<tr>
<th>Links</th>
<th>Language of instruction</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (semesters)</td>
<td>1 Semester</td>
<td></td>
</tr>
<tr>
<td>Module frequency</td>
<td>halbjährlich</td>
<td></td>
</tr>
<tr>
<td>Module capacity</td>
<td>unlimited</td>
<td></td>
</tr>
<tr>
<td>Reference text</td>
<td>Course in the semester break In addition to the exam, completion of an assignment is required to pass the module. GV-SOLAS accreditation aimed for in 2016, FELASA in 2017</td>
<td></td>
</tr>
<tr>
<td>Modullevel</td>
<td>MM (Mastermodul)</td>
<td></td>
</tr>
<tr>
<td>Modulart</td>
<td>Wahlpflicht</td>
<td></td>
</tr>
<tr>
<td>Lern-/Lehrform / Type of program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vorkenntnisse / Previous knowledge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examination</th>
<th>Time of examination</th>
<th>Type of examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final exam of module</td>
<td>within 2 months of completing the course</td>
<td>Written exam of 90 min.</td>
</tr>
</tbody>
</table>

<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>2.00</td>
<td></td>
<td>28 h</td>
<td>28 h</td>
</tr>
<tr>
<td>Exercises</td>
<td>3.00</td>
<td></td>
<td>42 h</td>
<td>42 h</td>
</tr>
</tbody>
</table>

Total time of attendance for the module 70 h