neu751 - Laboratory Animal Science

Module label: Laboratory Animal Science  
Module code: neu751  
Credit points: 3.0 KP  
Workload: 90 h  
(one week full-time in semester break + flexible time for studying and exam preparation)  
Lecture total workload: 45h: 2h contact / 20h background reading / 23h exam preparation  
Supervised exercise total workload: 45h: 35h contact / 10h background reading

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

Contact person:  
Module responsibility  
- Christine Köppl  

Authorized examiners:  
- Christine Köppl  
- Georg Martin Klump  
- Ulrike Langemann  
- Arne Nolte

Entry requirements:  
Skills to be acquired in this module:  
++ Expt. Methods  
+ Independent research  
+ Scient. Literature  
++ Social skills  
++ Interdiscipl. knowlg.  
+ 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 or birds or fish)  
- 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 or birds or fish  
- 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”. We aim to obtain accreditation by the Federation of European Laboratory Animal Science Associations (FeLaSa) by 2018.

Module contents:  
Background knowledge is taught using the third-party online platform "LAS Interactive" which concludes with a written exam that has to be passed before the practical part. Topics covered are:  
- 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, on an animal model of their choice (rodents, birds or fish):  
- Handling and external examination  
- Administration of substances, blood sampling  
- Euthanasia and dissection  
- Transcardial perfusion  
- Anaesthesia and surgery

Reader's advisory:  
"LAS interactive” internet-based learning platform  

Links:  
Language of instruction: English  
Duration (semesters): 1 Semester  
Module frequency: semester break, every semester  
Module capacity: 15  
Registration procedure / selection criteria: StudIP, sequence of registration

Modullevel: ---  
Modulart: je nach Studiengang Pflicht oder Wahlpflicht  
Lern-/Lehrform / Type of program: ---
Vorkenntnisse / Previous knowledge

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<thead>
<tr>
<th>Examination</th>
<th>Time of examination</th>
<th>Type of examination</th>
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<tbody>
<tr>
<td>Final exam of module</td>
<td>immediately before the practical part</td>
<td>written exam of 90 minutes</td>
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<tr>
<th>Course type</th>
<th>Comment</th>
<th>SWS</th>
<th>Frequency</th>
<th>Workload attendance</th>
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<tbody>
<tr>
<td>Lecture</td>
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<td>1.00</td>
<td>SuSe and WiSe</td>
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<tr>
<td>Exercises</td>
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<td>1.00</td>
<td>SuSe and WiSe</td>
<td>14 h</td>
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Total time of attendance for the module: 28 h