neu730 - Biosciences in the Public Eye and in our Laws

Module label
Biosciences in the Public Eye and in our Laws

Module code
neu730

Credit points
6.0 KP

Workload
180 h
(3.5 SWS Supervised exercise (UE) Total workload 158h: 48h contact / 40h preparation of presentation / 70h term paper 0.5 SWS Lecture (VO) Total workload 23h: 10h contact / 13 h background research)

Used in course of study

- Bachelor's Programme Biology > Fachnahe Angebote Biologie
- Bachelor's Programme Business Administration and Law > Fachnahe Angebote Biologie
- Bachelor's Programme Business Administration for Medium-Sized Enterprises > Fachnahe Angebote Biologie
- Bachelor's Programme Business Administration for Top Athletes > Fachnahe Angebote Biologie
- Bachelor's Programme Business Informatics > Fachnahe Angebote Biologie
- Bachelor's Programme Chemistry > Fachnahe Angebote Biologie
- Bachelor's Programme Comparative and European Law > Fachnahe Angebote Biologie
- Bachelor's Programme Computing Science > Fachnahe Angebote Biologie
- Bachelor's Programme Economics and Business Administration > Fachnahe Angebote Biologie
- Bachelor's Programme Education > Fachnahe Angebote Biologie
- Bachelor's Programme Engineering Physics > Fachnahe Angebote Biologie
- Bachelor's Programme Environmental Science > Fachnahe Angebote Biologie
- Bachelor's Programme Intercultural Education and Counselling > Fachnahe Angebote Biologie
- Bachelor's Programme Mathematics > Fachnahe Angebote Biologie
- Bachelor's Programme Physics, Engineering and Medicine > Fachnahe Angebote Biologie
- Bachelor's Programme Physics > Fachnahe Angebote Biologie
- Bachelor's Programme Social Studies > Fachnahe Angebote Biologie
- Bachelor's Programme Sustainability Economics > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Biology > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme English Studies and Literary Studies > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Dutch Linguistics and Literary Studies > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Economics and Business Administration > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Mathematics > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Music > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Philosophy / Values and Norms > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Physics > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Politics-Economics > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Protestant Theology and Religious Education > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Slavic Studies > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Social Studies > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Special Needs Education > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Sport Science > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Technology > Fachnahe Angebote Biologie
- Fach-Bachelor Pädagogisches Handeln in der Migrationsgesellschaft > Fachnahe Angebote Biologie
• Master’s Programme Biology > Skills Modules
• Master’s Programme Neuroscience > Skills Modules

Contact person
Module responsibility

○ Christine Köppl

Authorized examiners

○ Christine Köppl
○ Ulrike Sienknecht

Module counseling

○ Ulrike Sienknecht

Entry requirements

Skills to be acquired in this module

+ Scient. Literature
++ Social skills
+ Data present./disc.
++ Ethics

Upon completion of this course, students

• have basic knowledge of non-biological aspects of professional life (e.g., law, management, languages)
• know the basic safety and environmental concerns in bioscientific workplaces
• are able to critically define and discuss ethical conflicts in biological research, e.g., in the context of stem cell research or data manipulation
• have the ability to communicate scientific concepts, both orally and in writing
• are able to prepare and give a coherent presentation in a team
• have practised to lead a group discussion

Module contents

Lectures introduce the legal framework and the application procedures for experimental work with animals, humans and genetically modified organisms.

In supervised exercises, students research the ethical aspects and controversial issues of about 10 particular topics in the biosciences. They take turns in summarizing and presenting each topic in small teams, and leading a critical discussion of each topic. Problem-based, independent research of the scientific background by the students is an integral part of this module.

Example topics:
Good scientific practise and fraud
Neuroenhancement
Artificial intelligence
Animal welfare, Animal experiments
Overfishing, Nature conservation
State-of-the-art genetic tools and their implications
Genetically modified organisms, e.g., in food production, chimeras
Stem cells
Humans as experimental subjects

A bonus can be obtained through active participation during the semester. Active participation requires regular oral contributions to the group discussions, that go beyond giving your own talks. A bonus improves the exam mark by one step (0.3 or 0.4). The bonus is optional, an exam mark of 1.0 is achievable without a bonus. A bonus cannot be applied to pass a failed exam.

Reader’s advisory

Current law and interpretative commentaries, e.g., by the German Research Council (DFG) or the German Ethics Panel
Introductory papers aimed at lay persons, e.g. from “The Scientist” or widely respected newspapers
Problem-based, independent search for relevant scientific literature is an integral part of this module

Links
Languages of instruction
German, English
Duration (semesters)
1 Semester
Module frequency
annually, summer term
Module capacity
18
Module level
---
Modulart
je nach Studiengang Pflicht oder Wahlpflicht
Lern-/Lehrform / Type of program
Vorkenntnisse / Previous knowledge
Fundamentals of genetics, physiology, ecology and biological systematics
Examination
Time of examination
Type of examination
Final exam of module within a few weeks of summer term lecture period

Term paper
In addition, mandatory but ungraded: Regular participation during the semester is required (max 3 days of absence)

<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></td>
<td>2.00</td>
<td>SuSe</td>
<td>28 h</td>
</tr>
<tr>
<td>Seminar und Übung</td>
<td></td>
<td>2.00</td>
<td>SuSe</td>
<td>28 h</td>
</tr>
</tbody>
</table>

Total time of attendance for the module

56 h