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 Business Administration and Law > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Business Administration for Medium-Sized Enterprises > Fachnahe Angebote Biologie
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- Dual-Subject Bachelor's Programme Sport Science > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Technology > Fachnahe Angebote Biologie
- Dual-Subject Bachelor's Programme Special Needs Education > Fachnahe Angebote Biologie
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- Dual-Subject Bachelor's Programme Special Needs Education > Fachnahe Angebote Biologie

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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
Modulart: ---
Modulart: je nach Studiengang Pflicht oder Wahlpflicht
Lern-Lehrform / Type of program: Fundamentals of genetics, physiology, ecology and biological systematics
Vorkenntnisse / Previous knowledge: within a few weeks of a summer term lecture

Examination
Final exam of module
Type of examination
Term paper
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<tr>
<th>Examination</th>
<th>Time of examination</th>
<th>Type of examination</th>
<th>Comment</th>
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<tr>
<td></td>
<td>period</td>
<td>In addition, mandatory but ungraded: Regular participation during the semester is required (max 3 days of absence)</td>
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<tr>
<td>Course type</td>
<td>SWS</td>
<td>Frequency</td>
<td>Workload attendance</td>
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<tr>
<td>Lecture</td>
<td>2.00</td>
<td>SuSe</td>
<td>28 h</td>
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<tr>
<td>Seminar und Übung</td>
<td>2.00</td>
<td>SuSe</td>
<td>28 h</td>
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**Total time of attendance for the module**

56 h