

Program of Studies:	Bachelor and Master Program Bioinformatics
Name of the Module:	Organizational Structures in Scientific Research
Abbreviation:	E-BM-1
Subtitle:	-
Course Name:	Lecture: Organization of Scientific Research
Semester:	Suitable for Bachelor's students from the 5th semester and Master's students, as well as for interested students from natural science courses.
Frequency:	Irregular
Responsible Lecturer:	Prof. Dr. Volkhard Helms
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Language:	English
Level of the unit/ mandatory or not:	Module element of „Practical Skills Classes“ (Bachelor: mandatory elective; Master: elective)
Course type/weekly hours:	Lecture: 1 hour per week; Block course on four dates
Total workload:	30 h = 16 h of classes and 14 h private studies
Credits:	1
Entrance requirements:	None
Aims/Competences to be developed:	Students will be familiarized with the organisation of scientific research in academic environments. They will understand potential interests behind and signatures of scientific misconduct. Students will be taught accepted rules of good scientific practice. We will also discuss career perspectives in academia and industry.
Content:	<ol style="list-style-type: none"> 1. How does science work? <ul style="list-style-type: none"> • Publishing: articles, conferences • Grant applications • Reviewing system / examples • How does one do research? • How do research groups operate? Hierarchies

	<p>2. Scientific scandals</p> <ul style="list-style-type: none"> • Data manipulation • Plagiarism • Conflicts of interest (e.g. in drug development) • Bossing, mobbing, sexism, ... • Ombudsman system: UdS, DFG, ... <p>3. Good scientific practice</p> <ul style="list-style-type: none"> • Regulations: DFG, UdS • Documentation / Archiving of research results / Confidentiality • Publishing: Author list, correctly citing work of others <p>4. Career paths in science and industry</p> <ul style="list-style-type: none"> • Work in industry / start-ups • What are typical paths toward a permanent position in academia? • Topic: what is a good topic of research? • How can I select the right research group for me? • You need to know how to work with people, understand hierarchies + networking • Applying for fellowships, recommendation letters
Assessment/exams:	Compulsory attendance on at least three of the four dates; test, ungraded
Literature:	Lecture slides