

Degree Programme	Bachelor of Science 'Human Movement in Sports and Exercise'
Module	Data Acquisition and Data Analysis
Module Number	10

1	Basic information	
Semester	3.-4. semester	
Credit points (CP)	14	
Workload (h) - total	420	
Duration of module	2 Semester	
Status of module	mandatory Module	

2	Profile
Objective of the module/integration into the curriculum	
The aim of the module is to enable students to apply research methods according to the specific requirements in sports science.	
Content of Module	
The objective of this module is to enable students to actually use and apply specific research methods in the field of sports and exercise. The students will be offered a wide range of courses to ensure their methodological breadth. Within the module, one course (Seminar 1, offered in the first semester of the module) conveys ethical standards of conducting research, ensuring that students understand that the application of research methods necessitates detailed knowledge of ethical issues in the field. Students freely choose three methods seminars (each of 4 CP) from the course offer. Seminars may include, but are not limited to “Experimental Stimulation”, “Imaging Methods”, “Kinematic Analysis”, “Motor Testing”, “Multivariate Statistics”, “Mathematical Modelling”, “Behavioural Data Acquisition”, “Molecular Lab Techniques”, “Neuroscience”, or “Electrophysiology”. Within these courses, students deepen their understanding of research by acquiring and analysing data from real research projects.	
Learning outcomes	
The students know and understand the ethical issues raised when performing research. They are also able to act according to the standard rules of ethical research. They are able to provide adequate information for study participants, to prepare informed consent, to use code lists appropriately, and know how to write an ethical grant application. Students also know and have in-depth knowledge on how to apply specific research methods, e.g. how to conduct and evaluate a three-dimensional movement analysis. They will be able to apply these research methods to relevant research questions.	

3 Module Structure						
Components of module						
No.	Course type		Course	Status (mandatory/elective)	Workload (h)	
					Attendance (h)/SWS	Individual study time (h)
1	S		Ethical Issues in Research	m	30 (2 SWS)	60
2	S		Seminars in Data Acquisition and Data Analysis 1	m	30 (2 SWS)	90
3	S		Seminars in Data Acquisition and Data Analysis 2	m	30 (2 SWS)	90
4	S		Seminars in Data Acquisition and Data Analysis 3	m	30 (2 SWS)	60
Options within the Module			Students freely choose three methods seminars from the course offer. The class “Ethical Issues in Research” is mandatory.			

4	Examination concept				
Degree-Relevant Examination(s)					
No.		Type	Duration/ Length	course no.	Weighting for Module Grade
1		Oral Examination in one seminar	15 min.		50%
2		Poster in one seminar (different seminar from the one mentioned above for an oral examination)	DIN A0		50%
Weighting of Module Grade for Final Overall Grade			2%		
Required Coursework					
No.		Type	Duration/ Length	course no.	
1		Short and extensive coursework is necessary for the preparation, realization, and post-processing of courses. Short and extensive coursework include e.g. protocols (approx. 1–2 pages) and written/oral assignments (approx. 10 pages/10–15 minutes), respectively. The type of coursework will be announced at the beginning of the course. Duration and extent of coursework will be oriented towards the underlying workload.		LV No. 1	
2		Short and extensive coursework is necessary for the preparation, realization, and post-processing of courses. Short and extensive coursework include e.g. protocols (approx. 1–2 pages) and written/oral assignments (approx. 10 pages/10–15 minutes), respectively. The type of coursework will be announced at the beginning of the course. Duration and extent of coursework will be oriented towards the underlying workload.		LV No. 2	
3		Short and extensive coursework is necessary for the preparation, realization, and post-processing of courses. Short and extensive coursework include e.g. protocols (approx. 1–2 pages) and written/oral assignments (approx. 10 pages/10–15 minutes), respectively. The type of coursework will be announced at the beginning of the course. Duration and extent of coursework will be oriented towards the underlying workload.		LV No. 3	
4		Short and extensive coursework is necessary for the preparation, realization, and post-processing of courses. Short and extensive coursework include e.g. protocols (approx. 1–2 pages) and written/oral assignments (approx. 10 pages/10–15 minutes),		LV No. 4	

	respectively. The type of coursework will be announced at the beginning of the course. Duration and extent of coursework will be oriented towards the underlying workload.			
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5	Requirements			
Module related participation requirements	Successful completion of M1 and M2 is strongly recommended.			
Credit points	The credit points for the module are awarded if the module has been successfully completed overall, i.e. it has been demonstrated by passing all examinations and coursework that the learning outcomes assigned to the module have been acquired.			
Attendance	In all courses, 100% participation is recommended. In the seminar S1, 80% attendance is mandatory due to the particular importance of this seminar for research. In all other seminars, 80% attendance is also mandatory due to the fact that each stage in the acquisition of research methods builds upon the previous stage.			

6	CP - Distribution	
Attendance (= time of presentness)	LV No. 1	1 CP
	LV No. 2	1 CP
	LV No. 3	1 CP
	LV No. 4	1 CP
Degree-Relevant Examination(s)	No. 1	1 CP
	No. 2	1 CP
Required Coursework	No. 1	2 CP
	No. 2	2 CP
	No. 3	2 CP
	No. 4	2 CP
Sum CP		14 CP

7	Module offer	
Cycle/Timing	every Semester	
Module Coordinator	Prof. Dr. Heiko Wagner	
Faculty	FB07	

8	Mobility/Recognition	
Usability in other study programs	none	
Module title	Data Acquisition and Data Analysis	
English Translation of module component of field 3	are in english	

9	Additional Information	
	All seminars are in English. All reading and writing assignments will be in English, as well as all exams and presentations.	