Regular seminars of the doctoral college: Research Competence Module (1)

Seminar	Academic Writing Skills (two-day seminar) (in English)	ECTS: 1,50
Lecturer	Lesley-Anne Weiling	
Content	- know how to write reader-friendly academic papers and abstracts in English - be aware of common mistakes made when writing English and how to avoid them - receive feedback on a piece of individual writing - know more about paper style and structure, reader-friendly writing - English punctuation and academic vocabulary - have a better understanding of how to increase the chances of having a paper published in an academic journal - find out about getting papers accepted/what reviewers are looking for	

Seminar	Introduction to data processing with IBM-SPSS (two half-days seminar) (in German)	ECTS: 1,00
Lecturer	Prof. Dr. Reiner Kurzhals	
Content	**Required knowledge:** Basics of descriptive and inferential statistics - Introduction to IBM-SPSS - Introduction to data management with IBM-SPSS - Univariate and bivariate analysis with IBMS-SPSS - Multivariate analysis with IBM-SPSS	

Seminar	**Good scientific practice** (one and a half day seminar) (in German or English)	**ECTS: 1,25**
Lecturer	Dr. Julia Verse	
Content	The workshop „Good scientific practice" offers participants an introduction to research ethics expertise and gives them space to reflect on their values and attitudes as researchers. In the workshop, we will address the following questions using concrete case studies from the areas of data management, authorship and the publication process: What is good scientific practice? How does misconduct manifest itself in everyday science? What do the gray areas of scientific misconduct look like? What consequences can scientific misconduct have? How can universities and research institutions provide assistance in conflict situations in scientific collaboration? Acquisition of competencies in order to: • recognize critical situations at an early stage • avoid scientific misconduct • make competent decisions in conflict situations.	

Seminar	**History of science** (two-day seminar) (in English)	**ECTS: 1,50**
Lecturer	Prof. Dr. Thomas Jüstel	
Content	• The big picture - Science and human society development • Science, religion and philosophy - Three ways of learning • From early religions to modern astrophysics • Early physicists and recent discoveries • Once alchemy - today chemistry • Revolutions in biology • Historical development of light sources • The future of science - Diversification and Globalization	

Seminar	MAXQDA (two-day seminar) (in German)	ECTS: 1,50
Lecturer	Dipl.-Sozialwiss. Andre Morgenstern-Einenkel	
Content	• Projekt creation, data preparation & import • Code generation, data coding & code system development • Exploration & simple analysis (memos, lexical search, segment search) • Qualitative data analysis (group comparison, summaries, overlaps, etc.) • Incorporate variables & use to form contrast groups • Import, categorize & quantify survey data • Visual tools (document visualizations, document comparisons, concept maps, etc.) • Work in teams & intercoder reliability • Reports & export functions for transparency, quality, research data archiving	

Seminar	Statistical methods for empirical research (two-day seminar) (in German)	ECTS: 1,50
Lecturer	Prof. Dr. Michael Bücker	
Content	• Introduction or repetition of statistics (basics of descriptive and inductive statistics) • Multivariate statistical methods (dimension reduction: principal component and factor analyses; cluster analysis) • Statistical modeling (regression models, structural equation models)	

Seminar	Qualitative methods – the art of good interview (two-day seminar) (in German)	ECTS: 1,50
Lecturer	Dr. Sarah Weber	
Content	**Design of qualitative research:** • In a nutshell: aims and aspirations of qualitative research; quality criteria of qualitative interviews • Overview over different qualitative methods and interview forms • Interview guide structure and guide check **Interviewing and analysis of qualitative date:** • Interview guide workshop • Conducting interviews: do's and don'ts • Brief overview of transcription methods • Differences between qualitative content analysis & reconstructive methods • Reconstructive analysis: Working with and on examples (thematization rules, agency analysis, positioning analysis)	

Seminar	Planning, design & implementation of empirical research methods (four half days) (in German)	ECTS: 1,50
Lecturer	Prof. Dr. Marcellus Bonato	
Content		

Content

In many doctoral projects in a wide variety of disciplines, the methods of empirical social research are used to arrive at new findings. Not all Bachelor's and Master's programs deal intensively with these methods; or current doctoral students may not yet have considered the importance of these methods to be so relevant during their studies and have dealt with them less intensively.

This results in a need for catching up, support and reflection in one's own doctoral project. This seminar aims to address this need.

1st meeting:
The structuring of the general research process provides the foundation of the seminar. Therefore, the first appointment will give an overview of the phases of the general research process and the decisions to be made within these phases regarding a research question at hand.

Participants will then be given the opportunity to roughly present their goal and the status of their doctoral project, to assign it to the phases of the research process, if applicable, and to name their needs regarding catch-up, support, or reflection.

Based on this assessment, the contents of the seminar will be determined and designed according to the needs of the participants. This can lead to

1. an **input on research methods**, e.g. overview or deepening on topics like:
- Observation methods
- Survey methods (development of qualitative interviews and their evaluation possibilities by means of special software; development of standardized written questionnaires; determination of their quality criteria as well as evaluation possibilities;
- Evaluation methods (experimental planning; evaluation designs, evaluation standards, etc.).
2. the provision of **concrete support** (in small groups by lecturers on special topics, e.g. evaluation questions)
3. the opportunity for **reflection and exchange** (by lecturer as well as collegial consultation of participants).

Initial requests are addressed directly in the first appointment. The first appointment ends with the determination and planning for 3 further half-days.

Seminar	Programming in R (two-day seminar) (in German)	ECTS: 1,50
Lecturer	Dr. Dominik Leutnant	

Content	The open source scripting language "R" is considered one of the leading tools for data science projects whoch focus on the processing, analysis, modeling and visualization of data. Due to the "package-based" ecosystem, the functional range of "R" can be expanded quickly and free of charge, which enables its use in different disciplines (social, economic, information and engineering sciences) and projects. Simple statistical analysis of measurement data or questionnaires can be performed as well as the development of sophisticated classification and prediction models using machine learning algorithms. In this training you will learn the secure handling of the programming language "R" and the development environment RStudio, in order to independently carry out statistical evaluations and to create decision bases. Create user-defined functions, expressive graphics and learn efficient as well as goal-oriented programming in "R" by means of practical exercises. **Contents:** **Basics** • RStudio as a development environment • Understand and apply R basics • Import and export of data **Practice – working with "R"** • Efficient programming in "R" • Exploratory data analysis methods • Visualizeation of data using "grammar of graphics" • Modeling of data • Transfer oft he contents to your project (if available: use your own data set) **Add-Ons** • „reproducible research" with R • Creation of own packages • Version control with git

Seminar	Academic Publishing – Fit for Peer Review (one-day seminar) (in German)	ECTS: 0,75
Lecturer	N. N.	

Content	This workshop is intended for doctoral students with little or no publication experience who plan to write a resarch article in the near future.
	
	The workshop is divided into two parts: In the first part, participants will receive an overview of the peer review process. The following topics will be presented in impulse lectures and discussed in a collegial exchange
	
	• Reasons for rejections of submitted articles
	• Practical tips for writing articles and the summary text
	    ○ Thematical focussing
	    ○ Tips for the introduction
	    ○ Outlines of technical articles and abstracts
	    ○ Technical style and formulation aids
	    ○ Aspects of text optimization
	
	Germand and English text examples are used.
	
	In the second part, a first draft for a research article will be developed step by step. For this purpose, the participants first write an abstract (alternatively, they can revise their own abstracts that they have brought with them) and also draft an outline for the article, which they fill with initial text modules.
	
	Prerequisites:
	
	• Participants will bring either a rough idea for an article or already an abstract for a planned article.
	• Participants also need their laptop and ideally bring one or more journals relevant to their field of study.	

Seminar	**Academic writing for doctoral students** (two half days) (in German)	**ECTS: 0,75**
Lecturer	Dr. Stephanie Möller	
Content	**Theoretical background** Among other things, four-phase model according to Werder (1993) with problem identification, structure planning, writing and revising. At the same time basis for the seminar program. **From a vague idea to a concrete topic** • Idea management – methods of elaboration • Transfer of a question into the scientific context • Reduction to central core questions as a guideline for later work **Generating knowlege and data – organization of scientific work** • Method selection and data collection • Design and preparation of experiments • Concept for documentation • Creation of a literature archive • Scientific diary **Avoiding a nervous breakdown – infrastruture for actual writing** • Software for data analysis and document creation (Microsoft Office and alternatives) • Requirements made by examination or doctoral regulations • Value of standards for tables and graphics	

Research Competence