

UNIVERSITÄT BERN

#### Doctoral Program Brain and Behavioral Sciences

University of Bern Department of Psychology Fabrikstrasse 8 3012 Bern

# Spring Course 2025

# "Longitudinal Data Analysis"

**Course Schedule** 

### Wednesday, 2<sup>nd</sup> of April 2025 | Room B-102, Uni S, Schanzeneckstrasse 1

09:00 – 12:15h	PD Dr. Dorota Reis, Saarland University
13:30 – 17:00h	

## Thursday, 3<sup>rd</sup> of April 2025 | Room B-102, Uni S, Schanzeneckstrasse 1

09:00 – 12:15h	PD Dr. Dorota Reis, Saarland University
13:30 – 17:00h	

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# Friday, 4<sup>th</sup> of April 2025 | Room B-102, Uni S, Schanzeneckstrasse 1

09:00 – 12:15h

PD Dr. Dorota Reis, Saarland University 13:15 – 15:15h

This course is organized for PhD students in the Doctoral Program Brain & Behavioral Sciences. For attendance of the three days, you will be awarded 2 ECTS.

We also welcome other Ph.D. students and Postdocs outside the Doctoral Program, yet students enrolled in the Doctoral Program Brain and Behavioral Sciences have priority for registration. The deadline for registration is the 2<sup>nd</sup> of March 2025.



More information



Registration

### **Course Description**

### PD Dr. Dorota Reis, Saarland University

#### Longitudinal Data Analysis

Understanding how people change over time is critical in social and behavioral research. This workshop introduces longitudinal structural equation modeling (SEM) to analyze data collected from the same individuals at multiple points in time. We will explore a comprehensive range of SEM approaches, from simple autoregressive models for two-point data to advanced multivariate latent curve models covering multiple time periods. Topics include longitudinal factor analysis, latent trait-state models, latent change models, random intercept cross-lagged panel models, latent curve models, and multiple group growth models.

Throughout the workshop, we emphasize both conceptual understanding and practical application. Using R statistical software, participants will work with real empirical data to understand how these models work. By the end, you'll have the knowledge and tools to:

- Understand the conceptual foundations of longitudinal latent variable modeling
- Select appropriate models for your research questions
- Apply these techniques to your own data
- Interpret results meaningfully to draw conclusions about stability and change

This hands-on approach ensures that you'll leave with both theoretical knowledge and practical skills for analyzing repeated measures data in your own research.