# INTRODUCTION TO MULTILEVEL MODELING

## *With Applications in SPSS*
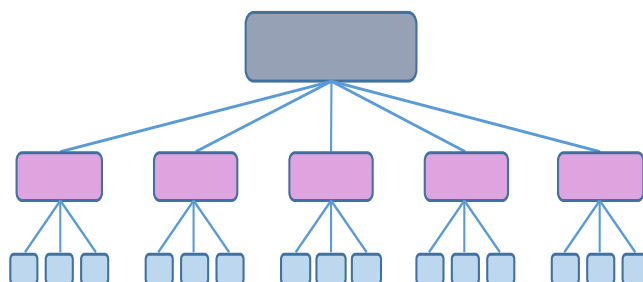
**TWO-DAY COURSE**
**in English**

**FEBRUARY 2nd & 3rd**
**10:30am – 6:00pm**

**Humanities and Social Science Classroom Bldg. W513**

**Registration via email (required) by January 27th:**
**hommerich@let.hokudai.ac.jp**

*taught by*

**Nate Breznau, PhD Sociology,** Postdoctoral Fellow Mannheim Centre for European Social Research, University of Mannheim, Germany

As an experienced researcher, Nate Breznau has not only used multilevel modeling in his own research, but is also known for his easy to follow and fun teaching style. For more info: https://sites.google.com/site/nbreznau/home

This course offers a general introduction to multilevel modeling as a set of scientific statistical methods, and as a perspective of logic and reasoning about how the world is structured or nested in layers. Students with everything from none to intermediate knowledge of multilevel techniques are welcome to join. No previous knowledge is necessary. Using data you will learn how, or improve your current knowledge of how, to estimate the effect of one thing on another (the effect of X on Y) when these things occur at different levels, for example, individuals in schools or countries, teams in leagues, robots in factories, or time points observed within the same persons.

The course is open for researchers and graduate students and will be English. For more information and to register (required), please email: hommerich@let.hokudai.ac.jp (Carola Hommerich, Associate Professor, Department of Sociology)

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# 1 WORKSHOP SCHEDULE

Note that this is a working schedule and may be changed or updated.

## Thursday, February 2nd

| | |
|---|---|
| 10:30am | Welcome and Introductions |
| 10:45am | Introduction to Multilevel Models |
| |    When do I need a multilevel model? |
| 12:00pm | Analyzing Multilevel Data with SPSS |
| |    Basic code and decomposing variance |
| 1:00pm | *Lunch break* |
| 2:00pm | Effects in Multilevel Models |
| |    Intercepts and slopes |
| |    Mean centering, effect sizes |
| 3:45pm | *Short break* |
| 4:00pm | Effects continued |
| |    Random-, fixed-, and mixed-effect models |
| |    More coding examples |
| 6:00pm | End |

## Friday, February 3rd

| | |
|---|---|
| 10:30am | Cross-level Interactions (i.e., Mediation/Moderation) |
| 12:00pm | Graphing Multilevel Results |
| | BLUPs, assumptions and marginal effects |
| 1:00pm | *Lunch break* |
| 2:00pm | Graphing Continued |
| 3:45pm | *Short break* |
| 4:00pm | Longitudinal modeling |
| | Assumptions and effects |
| | Language: "fixed-effects" v. "random-effects" |
| 6:00pm | End |