



**The online course agenda**  
**'Inferential Statistics using IBM SPSS (Basics)'**  
Course programme as part of the  
**'Excellence Initiative – Research University'**  
**(IDUB) Programme**

Academic teachers and research and technical specialists, after the proper registration can be qualified as the course participants.

The course lasts for 30 teaching hours in total.

**Trainer: dr Breno Silva, Faculty of Modern Languages**

Learners will be able to understand the importance of statistics to obtain reliable empirical results and will be able to (1) assess the data, (2) run the most popular tests to compare groups, (3) run correlations and simple regressions.

**Learning outcomes**

- earn how to manage the large datasets for future analyses;
- Learn how to analyse data, check for assumptions in the data, and learn different ways to deal with the assumption in the data;
- understand the data format from common correlational and experimental research designs;
- better understand third party research findings;
- conduct the most common statistical analysis (T-test, ANOVAs, correlations, linear regressions).

**Expectations of the participants** (skills, applications, equipment):

- English proficiency at B2 (upper-intermediate) or higher;
- Software IBM SPSS statistics installed and ready to use (the license is available for staff and students at the University of Warsaw).

**Description of the class programme:**

**Module I: Basics of Statistics using IBM SPSS**

Content:

- The importance of statistics
- Variables and organizing data
- The SPSS interface.
- Test assumptions and running data diagnostics
- Hand-on data analysis (assessment)

**Module II: Comparing means and medians: between and within-subject designs**

Content:

1. Comparing two means (t tests and nonparametric alternatives)
2. Comparing two or more means (ANOVAs and nonparametric alternatives)
3. Extending ANOVAs: covariates and factorial designs
4. Hands-on data analysis (assessment)



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### **Module III: Correlations and linear regression analyses**

Content:

1. Parametric and nonparametric correlations
2. Simple linear regressions
3. Multiple linear regressions
4. Diagnosing residuals and spotting influential outliers
5. Performing ANOVAs as regressions analyses
- 6. Hands-on data analysis (assessment)