

Course description

Analysis of sociological data

1. Course name, ECTS, quarter/semester, contact hours

Analysis of sociological data, 4 ECTS, 3-4 quarters, 60 contact hours

2. Author of the course

Eduard Ponarin, Ph.D. (Sociology)

3. Outline

The purpose of this course is to acquaint the student with basic regression methods, including linear regression, logistic regression, and Poisson regression. The course will also provide a basic introduction to log-linear analysis and multilevel modeling. The course assumes knowledge of basic statistics and some experience with the R programming language. The course alternates lectures and labs. Labs review examples of problems discussed in the lecture. Students taking the course for credit will have to write a final paper using a regression method and turn in regular home assignments. The final grade is made up of the grades for final paper (50%) and home assignments (50%).

4. Structure and content

Themes

- 1) Linear regression. Outliers, non-linearity, multicollinearity, heteroscedasticity.
- 2) Binary response variable. Logit models.
- 3) Ordered regression and multinomial regression.
- 4) Poisson regression.
- 5) Poisson regression for analysis of complex contingency tables.
- 6) Multilevel regression.

5. Prerequisites: none

6. Assessment

The final grade is made up of the grades for final paper (50%) and home assignments (50%).