

SOCIOLOGY – DOCTORAL STUDIES

Quantitative Methods in Sociology

The course consists of three different parts: a) repetition of and further studies in quantitative methods (regression analyses, factor analysis, and cluster analysis); b) further development of our ability to analyse and interpret arguments based on quantitative reasoning, and c) further development of practical analytical abilities. We will acquaint ourselves with old and new quantitative techniques, practise their use, and read and analyse quantitative articles.

Teaching

There is one preparatory meeting (one hour), five two-hour lectures, six two-hour seminars with some elements of lecture, and six two-hour sessions in the computer laboratory.

NB the course is given at the doctoral level – successful participation will *require knowledge of regression analysis*, since that is the point of departure.

NB some of the articles in the literature list may be changed later.

29.10. Preparatory meeting: On the background of the students and the goals, methods, and contents of the course. The first seminar task will be given.

READ: Before the course begins it is advisable to repeat quantitative methods from books that you have used before or from the literature recommended below.

31.10. Preparatory data lab session: The SPSS test

READ: Repeat quantitative methods from books that you have used before or from the literature recommended below, especially the parts concerning SPSS.

2.11. Lecture 1: The assumptions behind regression analyses

READ: Repeat regression analysis (incl. logistic regression) from books that you have used before or from the literature recommended below.

5.11. Computer lab session 1: Linear and logistic regression analyses

READ: Lecture notes from lecture 1.

8.11. Introductory seminar: Discussion on quantitative method use. What quantitative methods are being used in sociology? Presentation of the results of the seminar task 1. The link between method and result.

READING AND PRESENTATION of *Freakonomics* by Levitt & Dubner.

12.11. Seminar 1: Statistical methods, societies, and individuals.
READING AND PRESENTATION of Mäkinen 2006 and Fahlén 2013

15.11. Lecture 2: Time-series regression analysis
READ: The article by Skog.

16.11. Computer lab session 2: Time-series analyses
READ: Lecture notes from lecture 2.

23.11. Seminar 2: The analysis of changing phenomena over time.
READING AND PRESENTATION of Kittel & Winner 2005, Rossow 2001.

23.11. Lecture 3: Factor analysis
READ: The article by Rummel.

26.11. Computer lab session 3: Factor analyses
READ: Lecture notes from lecture 3.

30.11. Seminar 3: The factor analysis in the service of social science.
READING AND PRESENTATION of Mäkinen 2007, Bradbury et al. 2009.

3.12. Lecture 4: Multi-level regression analysis
READ: Gill & Womack 2013 and Hayes 2006.

7.12. Computer lab session 4: Multi-level regression analyses
READ: Lecture notes from lecture 4.

10.12. Seminar 4: Variables at several levels: their effects and interactions
READING AND PRESENTATION of Blekesaune & Quadagno 2003 and/or Andringa et al 2015.

12.12. Lecture 5: Cluster analysis
READ:

13.12. Computer lab session 5: Cluster analyses
READ: Lecture notes from lecture 5.

14.12. Seminar 5: Cluster analyses
READING AND PRESENTATION of Amable 2003 (Chapter 4) and one article
TBD.

Literature

Amable, B. (2003). *The Diversity of Modern Capitalism*. Oxford: Oxford University Press. [Chapter 4]

Andringa, W.; Nieuwenhuis, R. & van Gerven, M. (2015), "Women's working hours", *International Journal of Sociology and Social Policy*, Vol. 35 Iss 9/10 pp. 582 – 599; DOI: <http://dx.doi.org/10.1108/IJSSP-10-2014-0073>

Blekesaune, M & Quadagno J (2003) "Public Attitudes toward Welfare State Policies: A Comparative Analysis of 24 Nations." *European Sociological Review* vol. 19, pp.415-427.

Bradbury DA et al. (2009). "Psychosis-Like Experiences in the General Population: An Exploratory Factor Analysis". *Personality and Individual Differences* vol. 46, pp.729-734.

Fahlén, S. (2013) "Capabilities and Childbearing Intentions in Europe", *European Societies*, vol. 15, issue 5, pp. 639-662, DOI: 10.1080/14616696.2013.798018

Gill, J. & Womack, A. (2013) "The Multilevel Model Framework" in Scott, M.; Simonoff, J.S. & Marx, B.D. (eds) *The SAGE Handbook of Multilevel Modeling*. CA: Sage. https://us.sagepub.com/sites/default/files/upm-binaries/57711_Scott_HB_of_Multilevel_Modelling.pdf

Hayes, A.F. (2006) "A Primer on Multilevel Modeling", *Human Communication Research*, vol 32, issue 4, pp. 385-410. DOI:10.1111/j.1468-2958.2006.00281.x

Kittel, B & Winner H. (2005) "How Reliable is Pooled Analysis in Political Economy? The Globalization-Welfare State Nexus Revisited." *European Journal of Political Research* vol.44, pp.269-293.

Levitt, S. & Dubner, S. (2006 or later) *Freakonomics*. William Morrow.

Mäkinen, I.H. (2006) "Suicide Mortality of Eastern European Regions before and after the Communist Period". *Social Science & Medicine* vol.63, pp.307-319.

Mäkinen, I.H. (2007) "The Acceptance of Suicide and Its Concomitants in Eastern and Western Europe in Times of Transition". I: Holyst, B. (ed.): *EuroCriminology* Vol. 20/21. Lodz University Press, Lodz, pp.3-27.

Rossow, I (2001) "Alcohol and Homicide. A Cross-Cultural Comparison of the Relationship in 14 European Countries". *Addiction* vol. 96, pp.77-92.

Rummel, R.J. (1967) Understanding Factor Analysis. I: *The Journal of Conflict Resolution*, 11, pp.444-480.

Skog, O.-J. (1988) Testing Causal Hypotheses about Correlated Trends: Pitfalls and Remedies. I: *Contemporary Drug Problems*, 4, pp.565-606.

Literature recommended for support

Field A. (2013/2018) *Discovering Statistics Using SPSS*. Thousand Oaks, CA: Sage.

Menard S. (2001) *Applied Logistic Regression Analysis*. Sage University Papers Series on Quantitative Applications in the Social Sciences, 07-106. Thousand Oaks, CA: Sage.

Students who speak Swedish may even use these works:

Edling, C. & Hedström, P. (2003) *Kvantitativa metoder: grundläggande analysmetoder för samhälls- och beteendevetare*. Studentlitteratur.

Wahlgren, L. (2008) *SPSS steg för steg*. Studentlitteratur.

Examination

- 📖 The tasks accounted for in the seminars. These are performed individually and constitute a part of the examination. **Obligatory attendance for all in seminars!** For other occasions, 75% attendance.
- 📖 Students are expected to read the relevant literature for each seminar. For each text, one student furthermore is expected to present the major findings and to become an expert on how the respective method is applied.
- 📖 Written assignment:
Use an existing dataset and apply at least one of the methods discussed in this course to produce new findings (instructions that are more specific will follow).

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