

Statistical Research Methods II

Course objectives

This course, intended as a sequel to the Statistical Research Methods I course, is designed to provide an introduction to several advanced techniques of statistical data analysis in the social sciences. The lectures will combine discussion of the statistical foundations of the methods with training in the application of these techniques to social science research problems. The SPSS and/or SAS computer packages will be used.

Course content

The course will begin with an introduction to SPSS and SAS. The topics of principal components, cluster analysis and factor analysis, which were introduced in Statistical Research Methods, will be further explored and the additional topics of correspondence analysis, multidimensional scaling, panel data, latent variable models and structural equations models will be introduced. This list of topics is tentative — other potential topics for discussion involve time-series models, Bayesian research techniques, and event history analysis.

Assessment

Assessment will be by means of graded problem sets, a project, and/or a final exam.

Reading

Articles and other readings will be handed out before each class. In addition, the following books will be helpful:

Multivariate Data Analysis, Hair et al. (1998)

Applied Multivariate Data Analysis, Everitt and Dunn (2001)

Latent Variable Models and Factor Analysis, Bartholomew and Knolt (1999)