Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

POG0020 Generalized linear models, 7.5 credits

Syllabus approved

2002-08-07

Subjects

Statistics, Computer Science and Systems Science

Education cycle

Third cycle

Grading scale

Pass / Failed
The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

The course is at the C level in statistics/mathematical statistics

Objective, including learning outcomes

The aims of the course are to give an introduction to theory and application of generalized linear models to give training in the analysis of actual data using

generalized linear
models

Content

An overview of linear statistical models. Generalized linear models: likelihood-based inference. Models with different link functions and distributions, such as models for discrete data; binary (logistic) regression; analysis of contingency tables. Introduction to log-linear models. Estimation and model fitting. Residual analysis. Overdispersion. Introduction to quasi-likelihood. Practical examples from different application areas with an emphasis on medical applications.

The teaching is given as lectures and classes. There is no compulsory teaching, but compulsory hand-in exercises that are solved using some statistical program package.

Requirements for examination

Examination is performed through a written final exam and hand-in exercises during the course.

Additional information

Responsible department

Department of Economics