Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFS0108 Regression analyses, 4.0 credits

Syllabus approved

2014-03-12

Subjects

Mathematic Statistics

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

General familiarity with mathematics and statistics taught at Swedish gymnasiums (high schools). It is also recommended (but not required) that participants have passed the basic course in statistics (4 hp) at the PhD level.

Objective, including learning outcomes

Upon successful completion of the course participants will be able to make use of standard regression analysis techniques, such as linear and logistic regression,

and to analyze and critically examine the results. The participants also will gain introductory knowledge on nonlinear regression, generalized linear models and mixed effects models.

Content

- Simple linear regression;
- Multiple linear regression;
- Regression diagnostics;
- Regression analysis using qualitative data;
- Transformation of variables;
- Weighted regression;
- Analyses involving correlated errors and collinear data;
- Principal components regression;
- Methods for variable selection;
- Logistic regression;
- Introduction to nonlinear regression;
- Introduction to generalized linear models;
- Introduction to mixed effects models.

Requirements for examination

Home exam

Additional information

Responsible department

Department of Forest Resource Management