

# **PFG0069, Statistics III: Regression Analysis, 4.0 Hp**

## **Syllabus**

Finalized by: Inst 260, 2019-04-09

Valid from: 2019V

### **Level within study regulation:**

Third cycle

### **Subject:**

- Mathematical Statistics

### **Grading scale:**

Pass / Failed

### **Course language:**

Swedish

### **Entry requirements:**

Statistics I: Basic Statistics or equivalent

### **Objectives:**

The objective of the course is to give an overview of linear, nonlinear and nonparametric regression. On completion of the course, the student will be able to:

- specify regression models including conditions and assumptions
- select an appropriate regression model for a given problem

- carry out a regression analysis in the statistical software R
- interpret and evaluate results correctly and draw reasonable conclusions
- clearly and concisely communicate results and conclusion

### **Content:**

The course will cover the following topics:

- Simple linear regression.
- Multiple linear regression.
- Nonlinear models.
- Nonparametric regression and generalized additive models (GAM).
- Analysis of residuals.

### **Modes of assessment:**

Passed exercises and passed examination in written and/or oral form. - If a student has failed an examination, the examiner has the right to issue supplementary assignments. This applies if it is possible and there are grounds to do so.

- The examiner can provide an adapted assessment to students entitled to study support for students with disabilities following a decision by the university. Examiners may also issue an adapted examination or provide an alternative way for the students to take the exam.
- If this syllabus is withdrawn, SLU may introduce transitional provisions for examining students admitted based on this syllabus and who have not yet passed the course.
- For the assessment of an independent project (degree project), the examiner may also allow a student to add supplemental information after the deadline for submission. Read more in the Education Planning and Administration Handbook.

### **Organisation:**

Department of Forest Resource Management

## Supplementary information

### **Other information:**

- The right to participate in teaching and/or supervision only applies for the course instance the student was admitted to and registered on.
- If there are special reasons, students are entitled to participate in components with compulsory attendance when the course is given again. Read more in the Education Planning and Administration Handbook.