Faculty common course 2019

Course name in Swedish
Modern statistik i naturvetenskaper

Course name in English
Modern statistics in natural sciences

Credit (higher education credits)
5 hp

Teaching language
English

Recommended prerequisites
Basic statistics

Course objectives and goals
To give an introduction to the most commonly applied modern statistical techniques and tools used in a wide range of natural sciences. In addition to providing you with an overview of the statistical “tool-box”, the course aims at giving an understanding of the philosophy and reasoning behind statistical design and inference. This is a general statistic course that attracts many students from biology, geosciences, chemistry, information technology and other related fields.

Course content
Experimental designs leading to ANOVA or ANCOVA, including block experiments, repeated measurement designs, nested and factorial designs. Multiple regression, including techniques for selecting variables and evaluating models. Generalized linear models (GLIM) with logistic and Poisson regression. Introduction to power analysis, multivariate analysis, resampling and permutation techniques.

Teaching (course structure)
The course consists of lectures, discussions and exercises.

Examination
Passed all exercises and attended all lectures.

Main responsible department
Department of Ecology and Genetics

Contact person(s) (name, email address)
Göran Arnqvist, Goran.Arnqvist@ebc.uu.se
Anssi Laurila, Anssi.Laurila@ebc.uu.se
Kurs datum/period
Late January – mid-March 2019
Course dates/period

Antal platser 30
Maximum number of participants

Anmälan om antagning till kursen ska skickas till
Application for admission to the course is to be sent to
http://www.biologi.uu.se/utbildning/forskaubildningskurser/

Skicka anmälan senast
Submit application not later than
2.12.2018

Målgrupp/er (om möjligt, specificera ämnen/inriktningar)
Target group/s (specify, if possible, subject/specialization)
PhD students in natural sciences