



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFG0047 From Genome Sequence to Genomic Selection, 5.0 credits

Syllabus approved

2016-01-22

Subjects

Biology

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

Basic statistics and genetics or equivalent.

Objective, including learning outcomes

By the end of the course, PhD students will be able to:

- quality control of sequence data

- implementation of imputation for SNP array and reduced representation sequencing data
- genome-wide association study
- genomic selection of various method

Content

The course will cover the general concept of genome sequencing, genome-wide association, and genomic selection for plant and animal breeding and the latest developments in genomic selection and breeding.

Requirements for examination

Quiz (40%) and final assignments (60%)

Additional information

Implementation

Scheduled activities:

Lectures and software demonstration 40 (5 days)

Examination and course evaluation 15 h

Self studies 50 h

Responsible department

Department of Forest Genetics and Plant Physiology