Department of Biology Education

Stockholm University

Syllabus

for course at advanced level

Biological Statistics II
Biologisk statistik II

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	BL7048
Valid from:	Spring 2016
Date of approval:	2016-02-29
Department	Department of Biology Education
Main field:	Biology
Specialisation:	A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University.

Prerequisites and special admittance requirements

Admittance to the course requires knowledge equivalent to Biological Statistics I 7,5 (BL4020) credits. (Three credits corresponds to approximately two weeks full-time studies). Swedish upper secondary school course English B.

Course structure

Examination code	Name	Higher Education Credits
HELA	Biological Statistics II	7.5

Course content

The course covers various aspects of experimental design and statistical estimation and hypothesis testing in the context of biological research. Different types of analytical methods and approaches are practised and discussed. The course focuses on how to select the appropriate method of analysis and how to analyse data with the aid of statistics computer programs. The topics include linear models, regression, pair-wise tests, analysis of variance (ANOVA), contingency tables, analysis of frequencies, and interpretation and presentation of statistical results.

Learning outcomes

It is expected that the student after taking the course will be able to
• demonstrate insight and practical experience of problems associated with planning and conducting biological experiments and investigations.
• select appropriate statistical methods for addressing particular questions.
• perform, interpret, and present results from various types of statistical analyses.

Education

The education consists of lectures, computer exercises and group exercisess.
Participation in computer exercises, group exercises and group education associated with this is compulsory. An examiner may rule that a student is not obliged to participate in certain compulsory education if there are special grounds for this after consultation with the relevant teacher.

Forms of examination

a. Examination for the course is in the following manner: measurement of knowledge takes place through: Written examination.

If the instruction is in English, the examination may also be conducted in English.

b. Grading is carried out according to a 7-point scale related to learning objectives:
A = Excellent
B = Very Good
C = Good
D = Satisfactory
E = Sufficient
Fx = Fail
F = Fail

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade of E is required to pass the course, together with:
•approved computer exercises
•participation in all compulsory education

e. Students who fail an ordinary examination are entitled to sit additional examinations as long as the course is offered. There is no restriction on the number of examinations. Examinations also include other obligatory elements of the course. Students who have passed an examination may not resit it in order to achieve a higher grade. Students who have failed on two occasions are entitled to request the appointment of a different examiner for the next examination. Any such request must be made to the departmental board.
The course has at least two examinations for each academic year in the years in which instruction is provided. Intervening years include at least one examination.

f.There is no facility to improve the grade Fx to a pass grade in this course.

Interim

Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

Limitations

The course may not be included in examinations in combination with the course Biological Statistics and Experimental Design 7,5 hp (BL8002).

Misc

The course is a component of the Master's Programme in Biology, and it can also be taken as an individual course.

Required reading

Course literature is decided by the departmental board and is described in an appendix to the syllabus.