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:	Autumn 2017
Date of approval:	2016-02-29
Changed:	2017-05-15
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 addresses various aspects of planning scientific experiments and studies. Different types of analytical methods and approaches are practised and discussed. The course provides training in analysis and visualization of data using the statistical program R. The content includes the linear model, regression, pairwise tests, analysis of variance (ANOVA), contingency tables, analysis of frequencies as well as interpretation and presentation of analysis results.

Learning outcomes

Upon completion of the course, students are expected to be able to:
• demonstrate insight and practical skills solving problems associated with planning and conducting biological experiments and investigations.
• select appropriate statistical methods for addressing particular biological questions.
• perform, interpret, and present results from various types of statistical analyses.

Education

Instruction consists of lectures, computer exercises and group exercisess.
Participation in computer exercises, group exercises and group education associated with this is compulsory. In the event of special circumstances, the examiner may, after consultation with the teacher concerned, grant a student exemption from the obligation to participate in certain compulsory instruction.

Forms of examination

a. The course is examined as follows: Knowledge assessment takes the form of written examination.

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

b. Grades will be set according to a seven-point scale related to the learning objectives of the course:
A = Excellent
B = Very Good
C = Good
D = Satisfactory
E = Sufficient
Fx = Fail
F = Fail

c. The grading criteria will be distributed at the beginning of the course.

d. In order to pass the course, students must receive a passing grade, pass the computer exercises and participate in all mandatory instruction.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board.
The course includes at least two examination opportunities per year when the course is given. At least one examination opportunity will be offered during a year when the course is not given.

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

Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan (and the revisions of the course literature).

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 part 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 published on the Department of Biology Educations's website at least two months before the start of the course.