

Syllabus

for course at advanced level

Science in Biological Research and Investigation
Vetenskaplighet i biologisk forskning och utredning

**7.5 Higher Education
Credits**
7.5 ECTS credits

Course code:	BL8008
Valid from:	Autumn 2011
Date of approval:	2006-09-11
Changed:	2011-10-10
Department	Department of Biology Education
Main field:	Biology
Specialisation:	A1F - Second cycle, has second-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 a Bachelor's degree and a minimum of 15 credits advanced courses in Biology. (Three credits corresponds to approximately two weeks full-time studies). Swedish upper secondary school course English B/English 6 or equivalent.

Course structure

Examination code	Name	Higher Education Credits
8008	Science in Biological Research and Investigation	7.5
8A08	Theory and Philosophy of Science	4
8B08	The Scientific Process in Practice	3.5

Course content

- a. The course prepares the student for a degree project and possible research education in biology. It considers different aspects of science, in both academic research and investigative work outside of the universities. It consists of scientific theory and philosophy of science, research ethics, scientific writing and publishing as well as other aspects of the scientific process in practice.
- b. The course includes the following elements:
1. Theory and Philosophy of Science, 4 hp
 2. The Scientific Process in Practice, 3,5 hp

Learning outcomes

After the course, students are expected to:

- be able to demonstrate knowledge and understanding of important theories regarding the scientific process
- be able to demonstrate knowledge of the scientific process in practice, including its limitations
- be able to formulate a well-founded own opinion of what constitutes good science

Education

The education consists of lectures, seminars, group discussions and home exercises as well as written and/or oral presentations.

Participation in seminars and group discussions 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 home exercises
- approved written and oral presentations
- participation in all compulsory education

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term “examination” here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

f. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination session.

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.

Misc

The course is normally studied in association with the Degree Project. The two elements of the course can be read separately in such a manner that the latter can use examples from the Degree Project. 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.