

# Syllabus

for course at advanced level

**Degree Project in Molecular Life Sciences**

**Examensarbete i molekylära livsvetenskaper**

**30.0 Higher Education**

**Credits**

**30.0 ECTS credits**

<b>Course code:</b>	BL9006
<b>Valid from:</b>	Autumn 2014
<b>Date of approval:</b>	2006-07-24
<b>Changed:</b>	2014-05-19
<b>Department</b>	Department of Biology Education
<b>Main field:</b>	Biology
<b>Specialisation:</b>	AXX - Second cycle, in-depth level of the course cannot be classified

## 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 30 credits advanced courses in Molecular Life Sciences within a discipline relevant for the specific projekt. (Three credits corresponds to approximately two weeks full-time studies). Swedish upper secondary school course English B or equivalent or one of the following tests. Cambridge CPE och CAE: Pass. IELTS : 6.0 (with no part of the test below 5.0). TOEFL (paper based): 550 (with minimum grade 4 on the written test part). TOEFL (computer based): 213. TOEFL (internet based): 79. and additionally 30 credits advanced courses in Biology.

## Course structure

Examination code	Name	Higher Education Credits
9A06	Project plan	5
9B06	Project work	25

## Course content

- The course covers an introductory part where the student draws up a detailed project plan with guidance of a supervisor. The plan should include a description and, where appropriate, a test (pilot study) of relevant and applicable methods, detailed and well-motivated hypotheses and a description of the theoretical and practical aspects of the planned study. After the introductory part is passed an individual practical or theoretical project work begins. The work is presented in a written report and orally at a seminar.
- The course comprises the following elements: 1. Project plan 5 hp 2. Project work 25 hp.

## Learning outcomes

After the course, students are expected to:

- show deeper theoretical and practical knowledge within a specific part of the molecular biological subject area
- be able to identify and define a scientific molecular biological problem and formulate a relevant hypothesis
- use, for the hypothesis, adequate methods to search, collect, gather and critically examine scientific information relevant to the subject area
- be able to analyse, critically examine and discuss the gained results and conclusions in relation to the hypothesis and the current understanding in the subject area

- be able to prepare and present both an oral and written presentation of the projects for different target audiences
- consider societal and ethical aspects in relation to gained results and conclusions

### **Education**

Instruction consists of supervision and seminars.

Students are entitled to a minimum of 20 hours of tuition, with individual tuition constituting at least 7 hours. In special circumstances, students are entitled to change tutor. Any such request must be made to the departmental board.

Participation in seminars 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 of element 1 and 2 takes the form of written and oral presentations.

b. Grades are assigned according to a seven-point goal-related grading scale:

A = Excellent

B = Very good

C = Good

D = Satisfactory

E = Sufficient

Fx = Fail (more work required before credit can be awarded)

F = Total fail

Grades of element 1 are assigned according to a two-point grading scale: Pass (G) or not pass (U)

c. The grading criteria will be distributed at the beginning of the course. The basic assessment criteria are:

1. Understanding of the assigned task
2. Execution of the experiment/field work/theoretical task
3. Knowledge of the theoretical background
4. Interpretation and analysis of results
5. Independence
6. Ability to keep to the agreed timetable for the work
7. Presentation – oral report
8. Presentation – written report

d. To be awarded a pass, the minimum grade E is required and participation in 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. 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 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.

### **Misc**

The course constitutes the compulsory independent work required for the Master's degree. The course is a component of the Master's Program in Molecular Life Sciences, but can also be read as a separate course.

### **Required reading**

The literature is based on scientific publications and reports in the relevant subject found by students in literature searches and literature distributed by the main tutor and/or the assistant tutor.