

# Syllabus

for course at advanced level

**Aquatic Ecology**  
**Akvatisk ekologi**

**15.0 Higher Education**  
**Credits**  
**15.0 ECTS credits**

<b>Course code:</b>	BL8011
<b>Valid from:</b>	Autumn 2007
<b>Date of approval:</b>	2006-09-27
<b>Department</b>	Department of Biology Education
<b>Subject</b>	Biology
<b>Specialisation:</b>	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 a minimum of 120 credits in Biology, Biology-Earth Science, Earth Science or Chemistry, including Ecology, Floristics and Faunistics 15. (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.

## Course structure

Examination code	Name	Higher Education Credits
8011	Aquatic Ecology	15

## Course content

The course covers the following: The scientific development of aquatic ecology including a historical retro perspective and future scenarios. Biogeochemical processes and mechanisms that influence the distribution of material in aquatic environments. Ecological and evolutionary characteristics in aquatic habitats with emphasis on hydrography and climatology. Production ecology such as eutrophy/oligotrophy and biological structuring, including bottom-up and top-down regulation in aquatic ecosystems. Scientific and experimental design as well as choice of methods in the field.

## Learning outcomes

It is expected that the student after taking the course will be able to: • explain how biogeochemical cycles determine the flow of materials in aquatic ecosystems • describe different ecological and evolutionary characteristics in aquatic habitats, especially regarding hydrography and climatology • describe the basics in ecological production patterns and biological structuring in aquatic environments • design and evaluate experimental investigations and environmental programmes and perform relevant choices of methods

## Education

The education consists of lectures, field studies, laboratory exercises, group exercises, seminars and project work.

Participation in field studies, laboratory exercises, group exercises, seminars, project work 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 and/or oral examination

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 field studies and laboratory 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.

### **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 can not be included in a degree together with the course Aquatic Ecology 10 p (BI3510) or the equivalents.

### **Misc**

The course includes compulsory elements in the field, which entail certain costs for the student. The course may be 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.