

# Syllabus

for course at advanced level

**Marine population and ecosystem dynamics**  
**Marin populations- och ekosystemdynamik**

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

<b>Course code:</b>	BL8056
<b>Valid from:</b>	Autumn 2013
<b>Date of approval:</b>	2013-05-20
<b>Department</b>	Department of Biology Education
<b>Main field:</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 Ecotoxicology 15 credits, alternatively, Aquatic ecology 15 credits. (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. OEFL (internetbased):79

## Course structure

Examination code	Name	Higher Education Credits
HELA	Marine population and ecosystem dynamics	15

## Course content

This course aims at giving a broad overview of theoretical, practical and applied aspect of population and ecosystem dynamics in the marine environment. This will be accomplished by focusing on ecological processes and on statistical aspects of data analysis and modeling in this field. The course will cover analysis of experimental and field data including long-term observations with the aid of statistics programs. This will be combined with theoretical questions of ecological processes, interactions between marine ecosystems and global change, and the use of monitoring data in research and human society.

## Learning outcomes

After the course, students are expected to:

- Select appropriate statistical methods for addressing particular questions based on field and experimental data

- Understand the response of marine ecosystems to environmental changes
- Understand how ecological theory describes the interplay among organisms and their environment
- Understand how long-term environmental monitoring programs are designed and conducted
- Describe how monitoring results are used by the society and in research
- Present the results for an environmental authority and the propose appropriate decisions and actions for a sustainable environment.

## **Education**

The education consists of lectures, seminars, computer exercises and field studies.

Participation in seminars, computer exercises as well as field studies 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 as well as written and oral presentations.

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:

- 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 element) 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 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. The provision also applies in the case of revisions to the course plan.

## **Limitations**

The course may not be included in examinations in combination with courses Marine Environmental Monitoring (BL7015) and Marine Environmental Monitoring and Ecological Risk Assessment (BL8043) or equivalent.

## **Misc**

The course is a component of the Master's Programme in Marine 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.