

# Department of Biology Education

# **Syllabus**

for course at first level Ecology, Floristics and Faunistics Ekologi och artkunskap

15.0 Higher Education Credits 15.0 ECTS credits

 Course code:
 BL2015

 Valid from:
 Autumn 2008

 Date of approval:
 2008-04-07

**Department** Department of Biology Education

Subject Biology

Specialisation: G1N - First cycle, has only upper-secondary level entry requirements

#### **Decision**

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University.

# Prerequisites and special admittance requirements

Swedish upper secondary school courses Biology B, Chemistry B and Mathematics C, or equivalent.

# Course structure

Examination code	Name	Higher Education Credits
2A15	Ecology	7.5
2B15	Ethology	1.5
2C15	Faunistics	3
2D15	Floristics	3

### **Course content**

a. The course covers basic ecology, ethology, faunistics and floristics. b. The course includes the following elements: 1. Ecology 7,5 hp. Concepts such as environmental factors, habitat, niche, biochemical cycles, production, energy flows, trophic dynamics, populations, communities, natural resources, ecosystems, diversity, succession and biomes. Theories of population dynamics, limiting and regulating factors, relationships between species, natural selection and adaptation. Problem identification, design of investigations and experiments as well as practical handling of materials and equipment at studies of some typical mid-Swedish habitats both on land and in water. 2. Ethology 1,5 hp. Proximate and ultimate explanation models. Behavioral Mechanisms: neural and hormonal control of behavior, motivation. Ontogeny of behavior: behavioral genetics and learning. Evolution of behavior: behavioral adaptations.

3. Faunistics 3 hp. The element covers the most important animal groups in the Swedish Fauna. 4. Floristics 3 hp. The element covers the most common plants in the Swedish Flora.

#### **Learning outcomes**

It is expected that the student after taking the course will be able to:

- account for basic knowledge in ecology and ethology
- give examples of ecological patterns and processes in terrestrial and aquatic environments
- show some skill in working with ecological questions in field
- identify plants and animals in Sweden by identification keys
- identify the most common plants and the most important animal groups of the mid-Swedish flora and fauna without aid.

#### Education

The education consists of lectures, group education, seminars, excursions, field studies and identification exercises.

Participation in group education, seminars, excursions, field studies, identification exercises 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 for element 1 takes place through:

written and/or oral examination as well as written and oral presentations, measurement of knowledge for element 3 and 4 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:
- •pass of element 2
- •approved field studies
- •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 may not be included in a degree together with the courses Biology 45 p (BI1100), Ethology 1 p (BI1170), Ecology 6 p (BI1190), Ecology och ethology 6 p (BI2180), Biology 40 p (BI1880), Ecology, Faunistics and Floristics 10 p (BI1890), Ecology 5 p (BI2080), Ecology 10 p (BI1980), Floristics and faunistics 4 p (BI1140), Floristics and Faunistics with Field Inventory Methods 7 p (BI2050), Floristics in the Biology-Earth Sciences Programme 8 p (BI1630), Faunistics in the Biology-Earth Sciences Program 6 p (BI1670) or the equivalents.

#### Misc

The course includes compulsory elements in field, which may entail additional cost for the student

## Required reading

Course literature is decided by the departmental board and is described in an appendix to the syllabus.