

Syllabus

for course at first level

Evolution and Biodiversity

Evolution och biodiversitet

15.0 Higher Education

Credits

15.0 ECTS credits

Course code:	BL5006
Valid from:	Autumn 2007
Date of approval:	2006-09-11
Department	Department of Biology Education
Subject	Biology
Specialisation:	G2F - First cycle, has at least 60 credits in 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 Cell and Molecular Biology 15 credits, Diversity and Phylogeny of Organisms 15 credits, Physiology 15 credits and Ecology, Floristics and Faunistics 15 credits. (Three credits corresponds to approximately two weeks full-time studies).

Course structure

Examination code	Name	Higher Education Credits
5A06	Theory	7.5
5B06	Laboratory exercises and group discussions	7.5

Course content

a. The course covers biodiversity patterns and evolutionary processes affecting biodiversity. The course will give the students a basic knowledge of • Biodiversity and evolutionary patterns: phylogeny, systematics, evolutionary units, paleobiology, biogeography, extinctions, life-histories, population genetics. • Processes involved affecting biodiversity: quantitative genetics, speciation, dispersal, vicariance, selection and adaptation, co-evolution, molecular evolution. • The course will introduce students to methods used in studies of evolutionary patterns and processes: taxonomy, cladistic analysis, phylogeny, comparative methods, modelling.

b. The course includes the following elements: Theory 7.5 credits, Laboratory Exercises and Group Discussions 7.5 credits.

Learning outcomes

It is expected that the student after taking the course will be able to: • identify and describe components in biodiversity • identify and explain basic processes affecting biodiversity • apply cladistic analysis • use phylogenies in analyzing the structure of biodiversity • use evolutionary models to frame questions and test evolutionary problems • to critically analyze articles and presentations concerning biodiversity and evolution.

Education

The education consists of lectures, laboratory exercises, group discussions and written as well as oral

presentations.

Participation in group discussions, oral presentations 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 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 Evolution 10 p (BI3270) or the equivalent.

Misc

The course is a component of the Bachelor's Programmes 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.