

Syllabus for Mosses, lichens and fungi – biodiversity and conservation 15 ECTS credits

1. Course details

Approved by the Education Committee of the Faculty of Science 01-03 -2007. The syllabus is valid from 01-07-2007. The course is at the Second cycle.

2. General information

The course is part of the main field of study in Biology at the Faculty of Science. The course is optional in a Bachelor's or Master's degree in Science, with a major in Biology. The course is also offered as a single subject course. The language of instruction is Swedish.

3. Learning outcomes

On completion of the course, the students shall have acquired the following knowledge and understanding:

- be able to recognize without help from literature around a hundred bryophytes and lichens from a specific list.
- be able to recognize the most common groups of macrofungi.
- be able to recognize the most common groups of terrestrial algae.
- be able to identify widespread bryophytes, lichen and fungi using scientific determination keys and floras.
- be able to explain how the cryptogam groups are evolutionary related.
- be able to identify and analyse plant communities dominated by bryophytes and lichen, and to give an account for the major environmental requirements of these communities.
- be able to propose management plans designed for promotion of biodiversity and the maintenance of especially valuable habitats for cryptogams.
- be able to explain and critically analyze processes leading to changed species composition and to use this information in conservation action plans.
- be able to use signal species as a tool for identification of biologically valuable sites.
- be able to apply information from red-data books, species information sheets and species action plans in practical conservation work
- be able to plan, carry out, analyse and present an inventory project.

4. Course content

The course consists of:

-Introductory presentations covering a summary of systematic relationships, terminology, and determination techniques. Information about sampling and preparation techniques and preservation of voucher specimen.

-Excursions to sites with representative habitats for bryophytes, lichens and fungi. These are carried out as single-day excursions and as a field week in southern Sweden. Presentations in the field of characteristic species, historical background and ecological properties of various habitats, including management and actions for preservation of biodiversity.

-Laboratory studies of collected material. Determination of bryophytes, lichen and fungi using microscopes and scientific literature.

-Literature seminar and lectures dealing with conservation issues.

-Inventory: An inventory project is carried out in the form of group exercises under realistic field conditions. The project is ended with oral and written presentations.

5. Teaching and assessment

Teaching consists of field exercises, microscopic work, lectures, seminars and project work. Field exercises, seminars, project work, and the course elements associated with these are compulsory. Examination takes the form of a written test (fungi) during the course and separate tests for bryophytes and lichens at the end of the course.

Students who fail the ordinary tests will have an opportunity to take another test in close proximity to the ordinary test.

6. Grades

Students are awarded one of the following grades: Distinction, Pass or Fail.

To be awarded a Pass on the whole course the students shall have passed the test, have acceptable project reports and to have participated in all compulsory course elements.

The final grade for the course is determined by the aggregated results of the different parts of the examination. In order to get Distinction or Passed, it is necessary to reach Distinction or Passed, for all examinations.

7. Admission requirements

To be eligible for the course requires: 90 ECTS credits natural science studies including at least 3 ECTS credits in Floristics and a course corresponding to BIO580 Basic Ecology 15 ECTS credits or BIO503 Botany 12 ECTS credits.

8. Literature

According to a list established by the department, available at least five weeks before the start of the course on the web-page for Undergraduate Studies in Biology, <http://www.lu.se/biology-education>.

9. Further information

The course cannot be credited as part of a degree along with BIO570 Basic Cryptogamics 10 credits