Faculty of Science

BIOR76, Biology: Plant Function, 15 credits

Biologi: Växtens funktion, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2014-10-28 to be valid from 2014-10-28, autumn semester 2014.

General Information

The course is an optional second-cycle course for a degree of Bachelor or Master of Science in Biology. The course is also offered as a single subject course. The language of instruction is English.

Language of instruction: English

Main field of studies	*Depth of study relative to the degree requirements*
Molecular Biology	A1N, Second cycle, has only first-cycle course/s as entry requirements
Biology	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

Knowledge and understanding

On completion of the course the student shall be able to:

- account for the function and structure of plants at organism, organ, and cellular level
- account for the different life processes of the plant and how these interact
- explain the basic developmental phases of plants and how the transitions are regulated
- describe evolutionary processes in plants, especially regarding the evolution of the different genomes

Competence and skills
On completion of the course the student shall be able to:

- apply methodology used in plant and evolutionary biological work, e.g. cell and plant cultivation, mutant comparisons, bioinformatics, and molecular phylogenetic reconstruction

Judgement and approach
On completion of the course the student shall be able to:

- evaluate discoveries and methods in plant breeding and biotechnology within a societal framework
- evaluate the quality of information from databases in relation to research publications

Course content

The contents of the course

- the structures and properties of the plant cell
- plant life processes and their regulation
- the structure, function and evolution of the plant genome
- developmental biology and reproductive systems
- the applications of plant biology, e.g. production physiology, plant breeding, and biotechnology
- training in methodology and information retrieval

Course design

The teaching consists of lectures, laboratory sessions, group work, field exercises, seminars, study visits, and projects. Participation in laboratory sessions, group and field exercises, seminars, study visits and projects, and thereby other integrated teaching, is compulsory.

Assessment

Examination takes place as a written examination and through approved compulsory parts. For students who have not passed the regular examination, an additional examination in close connection to this is offered.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.
To pass the entire course, approved examination, approved written assignments, approved project report, and approved compulsory parts, are required.

The final grade is decided through a weighing of the results of the parts that are included in the examination.

Entry requirements

For admission to the course, English 6/English B, and 120 credits of scientific studies, including knowledge corresponding to MOBA01 Cell Biology 15 credits, and BIOA01 Genetics and Microbiology 15 credits, either BIOB01 Botany 12 credits and 7.5 credits Chemistry, or MOBA03 Molecular Biology 15 credits, are required.

Further information

The course may not be included in a degree together with BIOR54 Biology: Plant Evolution and Diversity, BIOR74 Biology: Plant Ecology and Evolution, or BIOR26 Biology: Plant Biology.

Subcourses in BIOR76, Biology: Plant Function

Applies from H14

1401 Plant Function, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction