Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BIo654.1 Plant Growth and Development, 15.0 credits

Tillväxt och utveckling hos växter

The course is given as course independent of study programme

Syllabus discontinued 23 October 2007

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

28 February 2006

The version applies to students admitted from autumn 2006 to autumn 2008

The version is not a module version

Subjects

Biology

Education cycle

First cycle

Modules

Title	Code	Credits
Single module	0101	15.0

Advanced study in the main field

Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

The equivalent of: 40 Swedish University Credits (SUC) of basic (A-level) and intermediate (B-level) courses in Biology including 5 SUC in Cellbiology and 10 SUC in Chemistry.

Objectives

After the course the students will have deeper theoretical and practical knowledge in the structure and function of plants as well as their interactions with the environment.

Content

The course deals with developmental biology of plants and the environmental constrains upon plant growth and development. The course will cover the various processes of plant development such as cell division, meristem activity, expansion, plant stem cells, embryogenesis and organogenesis. Signal transduction and regulation of growth and development by plant hormones are central topics of the course. The effects of various stress factors, such as abiotic and biotic stresses are illuminated on the molecular and the whole-plant level. Some of the central plant molecular biology techniques, such as recombinant DNA, protein targeting, gene and protein expression analysis and mutant screening are introduced in the laboratory exercises using the plant model system Arabidopsis thaliana. All aspects of the course have strong connection to on-going research at Umeå Plant Science Centre.

Implementation

Lecture, discussions and seminars ca 75 h.
Laboratory work including project work ca 150 h.

Examination

Requirements for examination

Presentations of laboratory work, seminars and project work; and written examination.

Approved presentations and approved written examination.

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Additional information

The course is given as a part of the International Course Package in Plant and Forest Biotechnology.
The course is given by UPSC (Umeå Plant Science Centre), i.e. the Department of Forest Genetics and Plant Physiology at SLU in cooperation with the Department of Plant Physiology at Umeå University.

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Responsible department

Department of Forest Genetics and Plant Physiology

Supplementary Information

Finalized by: Programkommitté skog och mark
Biology Area: Other Biology Courses
Replacement course: BI4273