Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BI0679.1 Plant Biotechnology and Molecular Breeding, 15.0 credits

Växtbioteknik och molekylär förädling

The course is given as course independent of study programme

Syllabus discontinued 15 April 2009

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

25 October 2006

The version applies to students admitted from spring 2008 to spring 2008

The version is not a module version

Subjects

Biology

Education cycle

Second 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

BSc degree in Biology with 60 ECTS in Biology including 7,5 ECTS Cellbiology and 15 ECTS Chemistry, or the equivalent.

Objectives

After the course the student will
- have advanced theoretical and practical knowledge of the use of molecular biology methods in forest tree breeding
- have advanced theoretical knowledge of breeding
- have an understanding of the legislation regulating the use of biotechnology and transgenic technology in breeding (including patenting).
-be able to understand, evaluate and discuss novel discoveries from scientific papers
-be able to independently perform, summarize and present the findings of experiments.

Content

The course deals with:
(i) Plant transformation technologies;
(ii) Theoretical and practical aspects of tree breeding, and
(iii) Plant biotechnology from an industrial perspective.
The student will write a report on a project in regulatory practices or other aspects of biotechnology from an industrial perspective. The students will read scientific literature and hold oral presentations. The course will also give the student practical experience regarding molecular and computer simulation-based methods for tree breeding.

Implementation

Timetabled activities:
Lectures ca. 120 hrs
Laboratory experiments ca. 50 hrs (compulsory)
Project work ca. 50 hrs (compulsory)
Student seminars ca. 10 hrs (compulsory)

Literature studies/discussions ca. 40 hrs
Workshops ca. 30 hrs
Examination ca 5 hrs

Non-timetabled activities:
Self-directed studies ca. 65 hrs
Seminar preparation ca. 30 hrs
Total ca. 400 hrs

Examination

Requirements for examination

Assessment is based on performance in the written examination and presentation of the laboratory exercises, project work and oral seminar.

Successful completion of the course requires: a pass in the written examination, satisfactory appraisals of laboratory reports and seminars, and participation in compulsory activities.

- 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 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: Molecular Biology
Replacement course: BI0655