



## Syllabus

### **BI0713.1 Crop Production Science, 30.0 credits**

#### **Växtproduktion**

The course is given as course independent of study programme

Syllabus discontinued 12 August 2008

Version 1 in Slukurs. Corresponds to version 1 in Ladok

#### **Syllabus approved**

30 November 2006

The version applies to students admitted from autumn 2007 to autumn 2009

The version is not a module version

#### **Subjects**

Biology/Agricultural science

#### **Education cycle**

First cycle

#### **Modules**

<b>Title</b>	<b>Code</b>	<b>Credits</b>
Single module	0101	30.0

#### **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**

Swedish

## **Prior knowledge**

The equivalent of: 30 ECTS in Biology including 7,5 ECTS in Ecology, 7,5 ECTS in Plant Physiology, 7,5 ECTS in Floristics and Faunistic, and 15 ECTS Basic Soil Science, or 30 ECTS in Soil Science including 15 ECTS Basic Soil Science, 7,5 ECTS in Ecology, 7,5 ECTS in Plant Physiology, and 7,5 ECTS in Floristics and Faunistic is required.

## **Objectives**

The course integrates crop production science, entomology, plant nutrition, plant pathology, soil and water management in order to give the students good knowledge regarding crop husbandry. After the course the students should have good knowledge regarding

- Prerequisites and limitations for crop production in the Nordic countries in relation to climate, soil type, soil fertility, management systems, plant material, weeds, plant diseases and plant pests.
- Cultivation measures in crop production like water regulation, soil cultivation, plant nutrition regulation, weed control and plant protection.
- Mineral nutrients and their function in the plant, transport and availability in the soil.
- The influence of natural conditions and cultivation measures on establishment, growth and development of crops, weeds, plant diseases and plant pests, and on crop quality establishment.
- Crop stand ecology of arable land, i.e. the interaction between environmental factors, cultivated plants, natural flora and fauna, and importance for establishment, growth, development and quality establishment of the crop stand.
- Cropping systems including crop sequences and basic principles distinguishing organic and conventional farming.
- The influence of crop production on the environment and the ecosystem and the effect of national environmental quality goals on the crop production.

## **Content**

The course focuses on work with living plant material. Lectures, laboratory exercises and project work are related to greenhouse projects and analysis of farms with varying types of production. Lectures relate to the effect of environmental

factors and cultivation measures on crop physiology. In addition, lectures deal with ecological interactions between cultivated plants, crop pests and weeds, and the effect on these factors in different cropping systems. Laboratory exercises include: (a) species identification of plants, seeds, plant diseases and pests; developmental stages, morphology and over-wintering of cultivated plants, and crop physiology, (b) studies of: typical arable soils, in relation to a proper management system; drainage and irrigation need, soil tillage, mechanical weed control, fertilisation, seedbed preparation and sowing.

### **Implementation**

Lectures approx. 100 h

Excercises approx. 150 h (compulsory)

Study visits approx. 20 h

Exams/course evaluation approx. 10 h (compulsory)

Project work approximately 15% of the course time

### **Examination**

#### **Requirements for examination**

Written and/or oral exams, and presentation of exercises.

Passed examination as presented above and approved participation in compulsory parts of the course.

- 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 Crop Production Ecology

#### **Cooperating departments:**

Department of Forest Mycology and Plant Pathology

Department of Soil and Environment

### **Supplementary Information**

*Finalized by:* Programutskottet för naturresursprogrammet- biologi och mark och agronomprogrammets mark/växtinriktning

*Biology Area:* Other Biology Courses

*Replacement course:* BI0576