Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BI1199.1 Site Productivity and Production Ecology, 15.0 credits

Site Productivity and Production Ecology

The course is given Forestry Programme (professional degree - admission before 1 July 2007) and Forest Science - Master´s Programme and as course independent of study programme

Syllabus discontinued 24 September 2014

Version 1 in Slukurs. Corresponds to version 1 and 2 in Ladok

Syllabus approved

19 October 2011

The version applies to students admitted from autumn 2012 to autumn 2013

The version is not a module version

Subjects

Biology/Soil science

Education cycle

Second cycle

Modules

Title	Code	Credits
Single module	0101	15.0

Advanced study in the main field

Second cycle, has only first-cycle course/s as entry requirements (A1N)

Grading scale

5:Pass with Distinction, 4:Pass with Credit, 3:Pass, U:Fail
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: 120 credits, including 90 credits Forest Science (Biology or Soil Science) and English language proficiency demonstrated as:
- English B (Swedish secondary school) or equivalent.
Grade requirement: A minimum grade of Pass in the course above.

Objectives

The course examines from a functional perspective the above and below ground processes that controls, and are controlled by, woody biomass productivity in boreal forests.
After the course the student will be able to:
- Analyse the preconditions for the site productivity, i.e. how turnover of water, carbon and nutrients are affected by soil conditions, climate, tree stand and ground vegetation.
- Analyse how the development of the tree stand is affected by climate factors and competition for light, water and nutrients - competition between different organism groups (trees, ground vegetation, fungi and microbes), as well as competition between different individual trees.
-Apply a scientific approach for problem solving by formulating and testing hypotheses.
-Analysing complex problems with help of systems models.
-Follow general guidelines for oral and written scientific presentation.
-Use some common field methods to study forest productivity and ecology.

Content

The course begins with field studies at one/several common sites. The lectures are dealing with the role of climate, water balance, carbon and nitrogen cycle, understory, soil chemistry and tree stand for the forest productivity. These parts are also analysed in practical exercises and computer modelling/simulation exercises in parallel to the series of lectures. During the course the students perform a synthesis project, where the interactions between site properties and tree stand response are discussed.

Implementation

Scheduled activities

Lectures

approx. 50 Hours

Examination and evaluation

approx. 10 Hours

Laborations and excercises (time with teacher ca 50%)

approx. 140 Hours

Field studies

approx. 30 Hours

Project/synthesis (own work)

approx. 40 Hours

Discussions

approx. 10 Hours

Individual studies, not scheduled

Literature studies

approx. 120 Hours

Total

approx. 400 Hours

Formats and requirements for examination

Approved reports and presentations.

- 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 intended for the following prerequisites: "The equivalent of 120 credits, including 90 credits Forest Science, including intermediate level Soil Science, Ecology, Silviculture and Inventory Methodology and a BSc thesis work of 15 hp. During an intermediate period (2012-2013) also students that only fulfill what is stated under the heading "prerequisites" in the course syllabus will be admitted. This will be taken into consideration in the course; however students without the detailed prerequisites should be aware that some parts of the course may need extra work

- 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 Ecology and Management

Supplementary Information

Finalized by: Grundutbildningsnämnden, Fakulteten för skogsvetenskap
Biology Area: Ecology
Replacement course: SG0088