Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BI0973.1 Fire Management I, 7.5 credits

Fire Management I

The course is given as course independent of study programme

Syllabus discontinued 9 November 2009

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

2 June 2008

The version applies to students admitted from spring 2008 to autumn 2010

The version is not a module version

Subjects

Biology/Forest Management

Education cycle

First cycle

Modules

Title	Code	Credits
Single module	0101	7.5

Advanced study in the main field

First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

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

Swedish

Prior knowledge

The equivalent of: 30 ECTS of basic (A-level) courses in Biology or Forest management.

Objectives

The course gives a theoretical and applied knowledge on fire in northern forests. The aim is to provide the basic skills for using fire as a management tool for nature conservation as well as for silviculture.

After completing the course, students should:
-Have a basic understanding of fire as a physical process
-Understand how a number of different variables determine fire behaviour
-Understand how weather, forest structure and fuel characteristics impact fuel moisture dynamics
-Know the relationship between fire behaviour and the ecological effects on soils and vegetation
-Understand the long-term effects of fire on forest structure in the boreal forests.
-Be able to relate an outline of fire history in boreal Sweden and put this in an international perspective
-Understand how a prescribed burning is organized and executed
-Be able to handle the equipment normally used in prescribed burning
-Be able to participate in the execution of prescribed burning operations

Content

The course has a substantial element of field exercises. A main focus is to clarify the influence of fuel, weather and topography on fire behaviour and fire effects.

This is done through lectures, literature studies, field experiments and test fires. Field experiments deal with moisture relations of different fuel fractions and the processes of flaming and smoldering combustion and their respective influence on soil and plants. Burning experiments demonstrate central phenomena such as the acceleration phase from a point ignition, the influence of wind and topography on rate of spread and fire intensity, the effectiveness of different fuel breaks, and the influence of ignition pattern on fire intensity. These experiments are done at scales from a few m2 to several hectares. The historic fire regime in northern Sweden and the influence of man on the fire regime is presented during an excursion. Another excursion deal specifically with forest regeneration after prescribed fire.

Implementation

Timetabled activities
Lectures ca. 15 hrs
Literature seminars and presentations ca. 30 hrs (compulsory)
Excursions ca. 20 hrs (compulsory)
Experiments in the field ca. 50 hrs (compulsory)
Prescribed burning ca. 50 hrs (compulsory)
Self-directed studies
Literature studies ca. 35 hrs
Sum ca. 200 hrs

Examination

Requirements for examination

Reports (performed individually on literature and in groups on field experiments) and written exam (performed at home)

Participation in compulsary parts of the course and approved reports and written exam.

- 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 number of students is limited to 25.

- 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: Programkommitté skog och mark
Biology Area: Ecology
Replacement course: BI4262