

SLUkurs

Syllabus

PFG0064 Modelling of the forest landscape dynamics with help of an advanced decision support system, 3.0 credits

Syllabus approved

2018-08-23

Subjects

Forest Management

Education cycle

Third cycle

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

Students must be enrolled as PhD-students and should have a master in forest science (or similar). The course will be held in English.

Objective, including learning outcomes

The aim of the course is to introduce and give basic knowledge of how forest landscape dynamics and the provision of ecosystem services can be modeled over

time with help of the Heureka system, an advanced decision support system. The Heureka system is developed at SLU and has been designed to describe how the forest landscape develops, given different management directions. Short- and long-term forecasts can be made for, e.g, timber production, economy, nature conservation, recreation and carbon sequestration.

After completing the course, the students should:

- have basic knowledge of all four software in Heureka; StandVise, PlanVise, Regvis and PlanEval

- understand the basic methodology behind these software and how the system can be used for different types of analysis,

- be able to use one of the software in Heureka, the PlanVise software

- be able to interpret and explain the results of analyzes made with the system

Content

The course will start with one week of lectures, workshops and teacher-led exercises where basic knowledge about how the forest landscape dynamics can be modeled over time with help of the Heureka system. The lectures will cover following topics: modeling of landscape dynamics, decision support systems, overview of different parts of the Heureka system, simulation of management activities, optimization, multi criteria decision analysis. Thereafter, the students will complete an assignment where Heureka PlanVise is used, that will take approximately one week to finish.

Requirements for examination

Examination is performed through active participation and attendance during the first week and by completing an assignment on a relevant topic where Heureka-Planvise system is used

Additional information

The first week of the course is on-campus teaching in Umeå and the second week consist of off campus teaching.

Responsible department

Department of Forest Resource Management