



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFS0046 Modeling growth and yield for decision analysis, 7.5 credits

Syllabus approved

2009-09-16

Subjects

Biology

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

Accepted PhD students who (i) needs an understanding of the interplay between silvicultural modeling and problem solving, (ii) an insight into the tools stand and forest level management analyses, and (iii) would benefit from hands on with the Heureka decision support system.

Objective, including learning outcomes

After the course the student will

- have basic knowledge of different kinds of growth and yield models,
- have a basic understanding of what tools for analysis are available depending on the choice of model, and
- have practical experience of using the Heureka decision support system.

Content

Decision problems in forestry are inevitably dynamic, i.e. different options have to be evaluated based on their effects in the long range. The component of a support tool for forest decision analysis that carries the dynamics is the growth and yield functions. The course gives an orientation of different growth models; their construction and their suitability for decision analysis. Different kinds of empirical and processed based models will be penetrated. The basics of how analyses at stand and forest level is conducted will be given. They are then applied by the student with the help of the Heureka system. The course has the following outline:

- Week 1: Lectures and exercises (presence required in Umeå)
- Week 2: The student, together with his/her supervisor, elaborates a study to be performed with the Heureka system. The plan should be approved of by the course leader.
- Week 4: Examination on the literature.
- Week 5: Presentation of project work (by video/link or other suitable means)

Requirements for examination

Written or oral exam on the literature and approved project work.

Additional information

The course is given by an Environmental Certified Department (ISO 14001). One week location in Umeå, remaining weeks distance course

Responsible department

Department of Forest Resource Management