Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PFG0035 Applied problem solving via computer programming, 7.5 credits

Syllabus approved

2009-06-18

Subjects

Economy

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

Participants should have some knowledge of calculus, linear and nonlinear optimization before the course starts.

Objective, including learning outcomes

After the course, the participants should have:
- fundamental knowledge of numerical methods and connected computer programming.
- ability to apply these methods to new research problems from current research projects.
- ability to correctly and efficiently present and discuss relevant problem descriptions, model definitions, solution approaches, model results and interpretations.

Content

- Fundamental principles and algorithms of numerical methods, useful in order to analyse dynamic developments and to find equilibria and optima in typical applied research problems.
- Fundamental computer programming with focus on applications of numerical methods and applied research problems.
- Case studies where alternative numerical methods are used in combination with new computer codes developed by the course participants.
- Seminars with discussions of the case studies.

Requirements for examination

Written exam and seminar presentation of a case study.

Additional information

Time period: September - October 2009.

One two-hour lecture per week during ten weeks (20 hrs.). Between the lectures, the course participants study the literature and solve problems.

Responsible department

Department of Forest Economics