



# 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