Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PNG0014 Postgraduate Course in Bioenergy Technology and System, 10.5 credits

Syllabus approved

2008-01-28

Subjects

Technology

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

60 credits in technique/technology (=40 old Swedish University Credits or equivalent), minimum of 7.5 credits in chemistry and 7.5 credits in biology. 1 Swedish University Credit = 1.5 ECTS.

Objective, including learning outcomes

To acquire knowledge about different bioenergy sources with regards to primary production, characterisation of raw material, harvest techniques, logistic systems, storage, handling and upgrading. The general aim is to achieve further knowledge about energy production from biomass as well as liquid and gaseous biofuel.

Content

Woodfuel from forest - Biofuel from farmland (energy grass, willow) -Energy from waste and peat - Storage and drying of biofuel - Upgrading (pellets, briquettes, wood powder) - System aspects, e.g. potentials and economy - Recycling of wastes - Liquid and gaseous biofuel – bio-based engine fuels.

Requirements for examination

Written examination, presentation of results from own laboratory and assignments work.

Additional information

Part one: 7.5 credits
Part two: 3 credits (optional)

The course includes two parts: Part one leads to 7.5 credits (ECTS). Part two gives 3 credits. This part is optional i.e. course participant can choose to attend only part one of the course and get 7.5 credits.

PART ONE: This part runs during the period September-December (1.5 days/week). It includes approximately 40 hr lectures, obligatory lab exercise and 2-3 study visits. In addition the course involves at least one group assignment and an individual literature assignment on one of the themes of the course. Both assignments will be submitted as a written report and orally presented to other course participants. A written examination will be performed by the end of this part giving 7.5 credits upon success.

PART TWO: This part is optional and can start after a successful completion of part ONE. It involves an individual project work to be designed by the course leader together with the student's supervisor. The individual project will be related to the study area in which the post graduate student working on. After the completion

of the project and submission of an approved written report, 3 credits will be awarded.

Responsible department

Department of Energy and Technology