



Syllabus

TN0190.1 Transportation fuels from agricultural products, 7.5 credits

Biodrivmedel ur jordbruksprodukter

The course is given as course independent of study programme

Syllabus discontinued 7 December 2010

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

5 April 2006

The version applies to students admitted from spring 2006 to autumn 2011

The version is not a module version

Subjects

Technology

Education cycle

First cycle

Modules

Title	Code	Credits
Single module	0101	7.5

Advanced study in the main field

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

Swedish

Prior knowledge

The equivalent of: 40 Swedish University Credits (SUC) of basic (A-level) and intermediate (B-level) courses in technology and the course "Engineering Chemistry I, 5 SUC" or 40 SUC of basic (A-level) and intermediate (B-level) courses in chemistry.

Objectives

To acquire knowledge about different agricultural bio-energy sources with regards to primary production, process of production, usage of these bio-fuels, environmental aspects and also technical and economical conditions for replacement of fossil fuels by agricultural bio-fuels. National and international potential of raw material for production of renewable bio-fuels from agricultural products will be discussed. The course gives more advanced knowledge about production of biogas, ethanol, fatty acids methyl esters of rapeseed and soy beans and other agricultural products.

Content

- The course started with a repetition of fundamental organic chemistry.
- Chemistry of fossil and renewable bio-fuels.
- National and international potential of raw material for production of renewable bio-fuels.
- Production process of bio-fuels including hydrolyses, esterification and also fermentation.
- Environmental aspects of bio-fuels.
- Economical aspects of bio-fuels production and life cycle assessment (LCA).

Implementation

Lectures approx. 40 h,

Laboratory work, exercises and excursions approx. 50 h (compulsory)

Examination

Requirements for examination

Written examination, presentation of results from laboratory work and exercises
Passed examination and attendance of the laboratory, group work and excursions
part of the course

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Additional information

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Responsible department

Department of Forest Biomaterials and Technology

Supplementary Information

Finalized by: Grundutbildningsnämnden, Fakulteten för naturresurser och lantbruksvetenskap