



## Syllabus

### **TN0203.1 Basic bioenergy, 7.5 credits**

#### **Grundläggande bioenergi**

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**

6 December 2006

The version applies to students admitted from autumn 2007 to autumn 2011

The version is not a module version

#### **Subjects**

Technology

#### **Education cycle**

First cycle

#### **Modules**

<b>Title</b>	<b>Code</b>	<b>Credits</b>
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**

Equivalent to general requirements for higher education.

**Objectives**

The aim of the course is to give general and broad knowledge about bioenergy and biofuels.

After passing the course the students are supposed to be able to:

- account for access and use of global and local energy
- explain motive power and advantages with biofuels inclusive environmental aspects.
- describe different types of raw materials together with their origin and access (i.e. wood fuel, agricultural fuels, waste fuels and peat).
- account for different states of biofuels and their production processes (i.e. solid, liquid and gas biofuels).
- exemplify different fields of application for biofuels.

**Content**

The course will give an overview of global and local energy sources. Issues like "what economical and environmental motive powers influence the use of biofuels?" and "what alternatives to biofuels are available?" will be considered. Different raw materials for biofuel production and the most common production processes are also presented together with common fields of application like district heating, electricity production and engine fuels.

**Implementation**

The education embrace lectures, individual reading and exercises. Since the course is a distance course the main part of the communication will proceed through the course web site.

Lectures ca 30 hours

Exercises ca 80 hours

Individual reading ca 80 hours

In total ca 190 hours

## **Examination**

### **Requirements for examination**

The examination is performed by written examination and written exercises.

A passed course requires passed written examination, passed written exercises and participation in at least 75 % of the meetings.

- 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 course is given as a distance education course at 1/4 speed and is suitable as a further education course. Four meetings in Umeå during the course are planned (principally during weekends)

- 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