



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

4BT001 Bedömning av biomasseresurser, 7,5 högskolepoäng
Assessment of biomass resources (for energy), 7.5 credits

Main field of study

Bioenergy Technology

Subject Group

Bio Engineering

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved by Organisational Committee 2009-11-16

The course syllabus is valid from autumn semester 2010

Prerequisites

B.Sc. exam - at least 180 ECTS - in engineering or in natural sciences, or equivalent and English B or equivalent.

Expected learning outcomes

After the course, the student shall be capable to read, understand and critically assess not only the assumptions and presumptions but also the conclusions in qualified reports concerning assessments about biomass resources for energy production.

Content

The course contains:

- Biomass as such - What makes biomass become a biofuel?
- Biomasses' content of enthalpy, anergy, exergy and energy
- Ranking of biomass with respect to economy, enthalpy, anergy, exergy and energy
- How the end-user demands influence the ranking
- Methods to assess the total biomass resources
- Methods to extract useful energy from biomass

Type of Instruction

The course is taught via lectures and individual studies.
During the course, the student shall produce two reports.

Examination

The course is assessed with the grades U,3,4 or 5.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Other

Some course elements may entail costs defrayed by the course participant.

On request, a Swedish University course certificate will be awarded upon successful completion of the course.

Upon request, a Swedish University degree will be issued upon successful completion of the full demands for that degree.

Required Reading and Additional Study Material

Books

Ralph E.H. Sims

The Brilliance of Bioenergy

James & James 2002, ISBN 1 902916 28, 307 p

Frank Rosillo-Calle et al

The Biomass assessment handbook

Earthscan 2007, ISBN 1 84407 285 1, excerpts appr 120 pages

Reports

Reports from the CHRISGAS project, approximately 150 pages