HÖGSKOLAN I BORÅS
VETENSKAP FÖR PROFESSION

Course report – Faculty of Textiles, Engineering and Business

Name of course: Biofuels and biological treatment of wastes	**Ladok code:** A509TA
Number of higher education credits: 5	**Period (e.g. P1 2018):** P2 2018
Within study programme or alt. single-subject course:: MSc Resource Recovery	

Comments about response rate for the student evaluation

8 students of total 14 registered filled the survey on Pingpong. The students were principally very satisfied or satisfied with the course.

Analysis of:

Student results and student performance on the course

13 students participated in the exam and other examinations (labs, presentations and reports). The results was:

A: 2
B: 3
C: 5
D: 0
E: 1
F 2

How the course contents, teaching and examination have supported student learning

The course was about:

- The market of biofuels and residuals,
- Principles of Industrial Microbiology and Fermentation technology
- Enzymatic hydrolysis
- Ethanol (Microbiology and physiology of ethanol production, Fermentation modes of operation, Industrial processes for ethanol from molasses, grains and lignocelluloses, Ethanol wastewater: characteristics and treatments),
- Biogas (Bacterial digestion, Digestion process design, Fuels, electricity or heat from biogas)
- Biodiesel from oil and used cooking oils
- Compost process of the wastes
- Other biofuels and biological treatments of wastes
- Integration of biological treatments in nonbiological industries

The teachings are in the classroom. In addition, the lectures on biogas are on the film available to the students. The topic "Other biofuels and biological treatments of wastes" will be presented by the students who choose different topics and presented in the classroom. In addition, they had two lab sessions for enzymatic hydrolysis and ethanol production. The examination included:

- Written exam
- Presentation and report of the topic they chose

- Active participation in the lab sessions and writing their reports.

How the course has been linked to research

This course was based on the current development in the fuel market and waste treatment. The research group has active research in several aspects of the course including ethanol and biogas production. The students got the possibility to hear about the on-going research work.

Other comments

There were three teachers and one visiting teacher involved in the course. It had 26 hours teaching and 6 hours lab sessions.

Eventuella förslag till förändringar

The students were happy with the contents. We only got comment on microbiology part that had too much materials. We will consider its content for the next time.