



Resource Recovery

Resursåtervinning

7.5 credits

7.5 högskolepoäng

Ladok Code: 42K18C

Version: 2.0

Established by: The Teaching Committee 2013-08-19

Valid from: Autumn 2013

Education Cycle: Second cycle

Main Field of Study (Progressive Specialisation): Environmental Engineering (A1N)

Disciplinary Domain: Technology

Prerequisites: Eligible for admission to the MSc programmes in Resource Recovery.

Subject Area: Environmental Science

Grading Scale: ECTS-credits

Content

- Waste minimization
- Resource recovery for sustainable development
- Sustainable materials
- Feeding the waste streams: sources of materials in the environment
- Managing material waste: technologies for separation and recycling
- Drivers and barriers for material recycling: social, legal and economic factors
- Environmental impacts of waste and recycling
- Ethical issues

Learning Outcomes

Having passed the course, the student will be able to

- Knowledge and Understanding
 - 1.1 Describe different instruments available for decision makers to reach their goals
 - 1.2 Explain the reasons behind and the motives for resource recovery
 - 1.3 Describe the steps in the recycling process including
 - collection
 - sorting
 - dismantling
 - identification
 - 1.4 Describe available material recovery techniques, such as crushing, melting, pyrolysis
 - Capability and Ability
 - 2.1 Evaluate different available recovery techniques from an economic, environmental and social perspective
 - 2.2 Explain and discuss how waste management can be made Climate smart
 - Critical judgement and Evaluation
 - 3.1 Plan and explain how the waste system in a given environment should take account of sustainability, society and ethics

Forms of Teaching

Lectures, exercises, study visits and project work

Forms of Examination

The course will be examined through the following examination elements:

Written Examination

Learning outcomes:

Credits: 5

Grading scale: ECTS-credits

Study visits

Learning outcomes:

Credits: 0.5

Grading scale: Fail (U) or Pass (G)

Project

Learning outcomes:

Credits: 2

Grading scale: Fail (U) or Pass (G)

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

To be announced at course start.

Student Influence and Evaluation

The head of department and course coordinator have the responsibility to systematically and regularly monitor the students' assessments of the course. These assessments form the foundation for the course development.

Miscellaneous