UNIVERSITY OF BORÅS

Introduction to life cycle assessment - distance course

Introduktion till livscykelanalys - distanskurs

7.5 credits
7.5 högskolepoäng

Ladok Code: A167TG
Version: 7.0
Established by: Committee for Education in Technology 2018-01-24
Valid from: Spring 2018

Education Cycle: First cycle
Main Field of Study (Progressive Specialisation): Environmental Science (G1N)
Disciplinary Domain: Technology
Prerequisites: General entry requirements for university studies.
Subject Area: Environmental Science
Grading Scale: Fail (U) or Pass (G)

Content

The main goal of the course is for students to gain an understanding of the principles and structure of a life cycle assessment (LCA). The course covers important concepts such as goal and scope, system boundaries, flow charts, functional units, allocation, inventory analysis, classification, characterisation and weighting.

Learning Outcomes

After passing the course the student will be able to:

Knowledge and understanding
1.1 describe strengths and weaknesses with LCA and the need for transparency in LCA reports,
1.2 explain the importance of transparency of LCAs,
1.3 describe the limitations of LCA from a sustainable development perspective.

Skill and ability
2.1 plan a LCA,
2.2 develop a flow chart for the system under study,
2.3 perform a life cycle inventory based on the inputs and outputs in the flow chart,
2.4 interpret the results of an LCA.

Forms of Teaching

Teaching in the course consists of:

- self study
- discussions via distance meetings
- calculations

The students must also perform, and provide written reports, all home exercises.
The teaching is given in English.

The teaching language is partly, or fully, English

Forms of Examination

The course is examined using the following:

- home exercises

  Goals: All goals will be tested via the home exercises

ECTS: 7.5 hp
Grades: Fail or pass

The students' rights and responsibilities during examinations are according to the rules of the University of Borås.

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

Literature and Other Teaching Materials

The course literature is in English.
All compulsory material is in the university's teaching platform.

Recommended:
Baumann, Henrikke & Tillman, Anne-Marie (2004). *The hitchhiker's guide to LCA: an orientation in life cycle assessment methodology and application*. Lund: Studentlitteratur

Klöpffer, Walter & Grahl, Birgit (2014). *Life Cycle Assessment (LCA)* [electronic resource] : *A Guide to Best Practise*. Weinheim: Wiley

Student Influence and Evaluation

The course is evaluated according to the rules for course evaluation at the University of Borås, were the students' views are collected. Analysis of these views results in a course report that is published and shared with students of subsequent 'Introduction to life cycle assessment' courses. The report also forms the base for developing the course. The person responsible for the course is responsible for this evaluation.

Miscellaneous

The course is not part of a program. The course is a distance course.