



# MJ2641 Cleaner Production II

## 6.0 credits

### Cleaner Production II

This is a translation of the Swedish, legally binding, course syllabus.

### Establishment

Course syllabus for MJ2641 valid from Autumn 2009

### Grading scale

P, F

### Education cycle

Second cycle

### Main field of study

### Specific prerequisites

MJ2640 + MJ2620 or MJ2626 or MJ2623 or MJ2621 or corresponding knowledge.

### Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After the course, the student shall be able to independently lead and carry out a Cleaner Production study in a major production industry including:

- Establishing material- and energy balances for the overall process as well as the most important sub-processes of the industry (the core system),
- Carry out a screening Life Cycle Assessment of the production process, including the establishment of a more overarching material- and energy balance (including, upstream, core and downstream systems),
- Using the results from the two perspectives above suggest suitable Cleaner Production measures considering technical/economic, ecologic and social aspects of the production.

## Course contents

- Cleaner production fundamentals
- The industrial project work
- Material- and energy balances of industrial processes
- Cleaner production and Life Cycle Assessment
- Valuation of process alternatives in Cleaner Production in a sustainability perspective
- A Cleaner Production study group task

## Course literature

Selected scientific articles and reports

## Examination

- PRO1 - Approved Group Task Report, 4.0 credits, grading scale: P, F
- NÄR1 - Active Participation, 2.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

The examination is based on active participation in the course and on the quality of the group task report according to the following: NÄR1: Active participation (minimum 4 lectures, 3 Seminars and the Study visit): 2 credits ECTS, PRO1: Approved group task report: 4 credits ECTS

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.