



# FDM3506 ICT and Sustainability

## 7.5 credits

### ICT och Hållbarhet

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

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

### Establishment

Course syllabus for FDM3506 valid from Spring 2019

### Grading scale

P, F

### Education cycle

Third cycle

### Specific prerequisites

### Language of instruction

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

### Intended learning outcomes

On completion of the course, the student will be able to:

• orientate oneself among different ideas around what constitutes sustainability and sustainable development

• elaborate on the role of ICT in relation to the aim of society for economic, social and environmental sustainability

• reflect on the possibilities and limitations of ICT in relation to development of a sustainable society

• formulate how sustainability relates to his or her own thesis project.

## Course contents

Sustainability basics

ICT and direct effects

ICT and indirect effects

Sustainability through ICT

Sustainable Software Engineering

Sustainable Human-Computer Interaction

Computing within Limits

## Disposition

The course will be given in the form of 10 bi-weekly three-hour long seminars.

Each seminar will treat a specific subject from the course contents, as well as exploring the research front when it comes to sustainability in the particular fields of the ph.d. students who participate in the course.

The literature for each seminar will vary between 50-100 pages.

Each course participant is expected to read the literature before each seminar and actively contribute to the discussions.

Each course participant will write a course essay at the end of the course.

## Course literature

Primarily a collection of research articles or other relevant texts.

## Examination

- EXA1 - Examination, 7.5 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.

## Other requirements for final grade

A passing grade (P) is obtained through completing these criteria:

- 1) Active participation in 75% of the seminars, which includes reading and discussing the course literature
- 2) Approved presentation of individual course essay,
- 3) Approved completed course essay covering adequate amount of course topic and literature

## 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.