# FIK3615 Critical Perspectives on Engineering and Construction of ICT Systems 7.5 credits

Kritiska perspektiv på ingenjörsarbete och konstruktion av IT-system

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

## Establishment

Course syllabus for FIK3615 valid from Spring 2015

## Grading scale

G

## Education cycle

Third cycle

## Specific prerequisites

Enrolled as PhD student.

## Language of instruction

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

## Intended learning outcomes

The student upon completion of the course will be able to:

- explain the (ideal and factual) requirements on engineering
- describe his or her own view on critical perspectives on science, and compare this to critical perspectives on engineering
- apply critical perspectives to practical problems
- give an account of some concepts of ethics in science
- instrumentalise engineering problems under critical perspectives

## Course contents

The institutional context of science in the modern world, and the means by which inventions and discoveries become accepted.

Science as the building of networks.

Social construction of technology as a method of inquiry.

Technology that gives equal weight to technical, social, economic, and political questions.

Contemporary interpretation theories (in the Foucault book, the case is sexuality) and how it has been shaped by historical trends.

Gender and privilege studies of science and technology.

## Disposition

Reading course, ongoing discussion as appropriate, chiefly oral exam.

## Course literature

1. Bruno Latour (1987). Science in Action, Harvard Univ Press (288 pages).
2. Wiebe E. Bijker (Author), Thomas P. Hughes (Author), Trevor J. Pinch (Editor) (1987). The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology, MIT Press (400 pages).
3. Michel Foucault (1990). The History of Sexuality, Volume I: An Introduction, Vintage Books (168 pages).
4. Donna Haraway  (1990). Simians, Cyborgs and Women, Other Books (287 pages).

Four classics of modern critical theory pertaining to ICT and engineering-related science.

## Equipment

None.

# Examination

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.

Short written exam in the form of comments to each literature item, plus an oral exam (approx. one hour long).

# Other requirements for final grade

Full literature coverage, i.e. understanding of all items on the literature list, plus relevance to own research work indicated as appropriate.

# 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.