Philosophy of Science

Programme course

6 credits

Vetenskapsteori

TGTU76

Valid from: 2017 Spring semester

Determined by

Board of Studies for Computer Science
and Media Technology

Date determined

2017-01-25

Replaced by

TGTU83

Main field of study

No Main Field of Study

Course level

First cycle

Advancement level

G1X

Course offered for

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- Mathematics
- Computer Science and Engineering, M Sc in Engineering
- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering
- Chemical Biology
- Mechanical Engineering, M Sc in Engineering
- Applied Physics and Electrical Engineering, M Sc in Engineering
- Physics and Nanoscience, Master's programme
- Mathematics, Master's programme
- Protein Science, Master's programme
- Information Technology, M Sc in Engineering
- Applied Physics and Electrical Engineering - International, M Sc in Engineering
- Computer Science and Software Engineering, M Sc in Engineering

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites

At least two years studies at university.

Intended learning outcomes

After the course the student is able to

- identify and describe problems and methods within the philosophy of science
- give an overview of important traditions within the philosophy of science and technology.
- to demonstrate an understanding of the conditions for research in science and technology.

Course content

An introduction to epistemic traditions such as rationalism, empiricism, positivism and falsificationism. Central concepts in the philosophy of science. Problems concerning observation, induction, scientific explanations and rationality. Topics of the philosophy of technology concerning the goals and methods of technical research. The relation to pure science. The rationality of technology; technological autonomy versus technological pluralism.

Teaching and working methods

The course contains lectures and seminars. For self studies there are OH:s, written questions and the course literature.

Examination

| HEM1 | Written Test (not compulsory) | 0 credits | U, G |
| TEN1 | Examination | 6 credits | U, 3, 4, 5 |

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för Tema

Director of Studies or equivalent

Eva K. Törnqvist

Examiner

Ingemar Nordin

Education components

Preliminary scheduled hours: 30 h
Recommended self-study hours: 130 h

Course literature

A F Chalmers: Vad är vetenskap egentligen? (1995) I. Nordin: Teknologins rationalitet. (1988). Som hjälp finns OH-bilder, instuderingsfrågor samt viss litteratur som fastställs senare.

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.