



FSI3000 History of Physics and Epistemology 5.0 credits

Fysikens historia och kunskapsteori

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

Establishment

Course syllabus for FSI3000 valid from Spring 2009

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

PhD students in Physics/Theoretical Physics/Applied Physics and other interested PhD students.

Language of instruction

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

Intended learning outcomes

This course aims at giving students a general overview of the history of science with emphasis on physics. It also aims at giving basic knowledge of the epistemology of science applied to

physics, as well as incitements to self-reflection on the participants own research seen from a broader perspective.

As can be seen from the title of the course, its main emphasis is on physics. Apart from this the course is tailored from the participants' interests and preferences inside reasonable limits (see the titles of previous seminars in the **seminarieövningslista** (link)). The course is usually given in English.

Course contents

Epistemological aspects of the history of ideas in physics.

Disposition

The course is given in the format of seminars where the participants present various aspects of the history of ideas in physics. The epistemological aspects will be treated partly by lectures and partly by discussions after each presentation. To run the course there need to be at least 8 participants.

Course literature

- A.F. Chalmers: **Vad är vetenskap egentligen?**, Nya Doxa (1995). (What is this thing called science?)

Other literature:

- M.S. Longair: **Theoretical concepts in physics**, CUP (1984).
- S. Sjöberg: **Naturvetenskap som allmänbildning**, Studentlitteratur (2000).

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.

Other requirements for final grade

Self-study of the course book, 70% attendance at the seminars plus one presentation.

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.