

# Philosophy of Science

Single subject and programme course

3 credits

Philosophy of Science

720A04

Valid from:

**Determined by**

The Quality Board at the Faculty of Arts  
and Sciences

**Date determined**

## Main field of study

Theoretical Philosophy

## Course level

Second cycle

## Advancement level

A1X

## Course offered for

- Master's Programme in Statistics and Data Mining

## Entry requirements

For acceptance to the course, the student must be enrolled in the Master's programme Statistics, Data Analysis and Knowledge Discovery.

## Intended learning outcomes

After completion of the course, the students will be able to:

- use the vocabulary of the theory of science in order to assess their own work and the methods that are being used in their disciplines
- give an account of problems in the theory of science, such as problems concerning the nature of scientific laws and scientific development
- have a working knowledge of various methods employed in different scientific disciplines
- explain how various attempts to justify the use of inductive methods can affect our understanding of such methods
- explain how attempts to distinguish science from pseudo-science could affect the assessment of various proposed scientific results-

## Course content

Philosophy of science is an attempt to give an account of what science is, and what it is that distinguishes science from other activities. This can be done in several different ways, for instance by studying the history of science, that is, studying how people in different periods have viewed scientific activities. It could also be studied in a more sociological manner, examining how science is organized today. The focus of this course is more normative, however: the main issue is to examine how science should be conducted, what it is that distinguishes good science from bad science, or science from pseudo-science.

Focusing on the normative aspects of science will involve studying what a scientific theory is, how a scientific theory is related to observation, and what a scientific theory will tell us about the world.

Literature for the course is listed below.

## Teaching and working methods

The course consists of lectures and compulsory seminars. Literature studies.  
Language of instructions: English

## Examination

The course is examined by a written exam, concluding the course. The seminars are compulsory, and students are expected to participate actively in the seminars.

Students who have failed the course, or part of it, three times are entitled to demand that their efforts are assessed by some other examiner.

Students who have received the grade Pass may not take part in a new exam for a higher grade.

## Grades

ECTS, EC

## Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men's and women's experience and knowledge is made visible and developed.

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## Department

Institutionen för kultur och kommunikation