



**Karolinska  
Institutet**

Course syllabus for

# **Philosophy of Science and Research Ethics, 10 credits**

Vetenskapsteori och forskningsetik, 10 hp

This course syllabus is valid from autumn 2024.

Course code	4HM026
Course name	Philosophy of Science and Research Ethics
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Medical Management
Level	AV - Second cycle
Grading scale	Fail (U), pass (G) or pass with distinction (VG)
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Education committee LIME
Decision date	2023-09-13
Course syllabus valid from	Autumn 2024

## **Specific entry requirements**

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in public health science, healthcare or other relevant social sciences subject area. And proficiency in English equivalent to English B/English 6.

In order to proceed to the course the student must have passed courses corresponding to 45 higher education credits on the Master's programme in health economics, policy and management.

## **Objectives**

The goal of this course is to enhance the student's understanding of problems that may arise in relation to research in medicine and health sciences, for example during the student's work with the master thesis. The course objective is also to provide the student with extended possibilities to develop a scientific and ethical approach to research and developmental work within health economics, management and policy.

After a completed course, the student is expected to be able to:

- describe theories and concepts of philosophy of science
- describe ethical - especially research ethical - theories, principles and situations
- identify, analyze and discuss scientific theory issues and ethical issues

# Content

The course contains the following central themes, theories and issues of philosophy of science:

- The concept of knowledge
- Scientific argumentation
- Induction and deduction
- Paradigm
- Positivism and falsification
- Hypothetico-deductive method
- Methodological collectivism and individualism
- Causality and correlation

The course also contains the following central research ethical and ethical theories, principles and problem areas:

- Research on humans and animals
- To do good and to not harm
- Autonomy
- Justice and priorities
- Informed consent and its components
- Ethical guidelines, for example the Declaration of Helsinki and the Nuremberg code
- Ethical Review
- Good research practice and deviations from good research practice, for example fabrication, forgery (falsification) and plagiarism

## Teaching methods

Lectures, group assignments, seminars and literature studies.

## Examination

The course is examined by:

1. An individual, written examination. Graded fail (U), pass (G) or pass with distinction (VG).
2. Individual contribution during oral presentations. Graded fail (U), pass (G).

For the grade *pass* (G) it is required at least a G for the examinations mentioned above; and presence during all seminars and group assignments. For the grade *pass with distinction* (VG) it is furthermore required that the grade is VG on the home assignment.

Presence is mandatory during all seminars and group assignments. The course leader will assess if and, in that case, how absence can be compensated. When the student has participated in and completed all mandatory parts, or compensated his or her absence in line with the course leader's instructions, the results for all course parts will be reported in Ladok.

Limitation of number of occasions to write the exam

The student has the right to write the exam six times. If the student has not passed the exam after four participations he/she is encouraged to visit the study advisor.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in will not be counted as an examination.

## Transitional provisions

Examination will be provided during a time of two years after a possible cancellation of the course. Examination can take place according to an earlier literature list during a time of one year after the date when a major renewal of the literature list has been made.

## Other directives

The course language is English.

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

## Literature and other teaching aids

Additional publications will be added.

### *Mandatory literature*

*Godfrey-Smith, Peter*

#### **Theory and reality : an introduction to the philosophy of science**

Chicago, Ill. : University of Chicago Press, 2003 - 272 s.

ISBN:0-226-30062-5 (inb.) £42.00 LIBRIS-ID:8946170

*Chapters 2-6.*

[Library search](#)

#### **Good Research Practice**

Vetenskapsrådet, 2017

URL: [Länk](#)

*Johansson, Ingvar; Lynöe, Niels*

#### **Medicine & philosophy : a twenty-first century introduction**

Frankfurt : Ontos Verlag, 2008 - iv, 475 s.

ISBN:9783938793909 LIBRIS-ID:10703367

[Library search](#)

*Rosenberg, Alexander*

#### **Philosophy of social science**

Fifth edition. : Boulder, CO : Westview Press, a member of the Perseus Books Group, 2016. - xi, 347 pages

ISBN:978-0-8133-4973-2 LIBRIS-ID:19916394

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### *Recommended literature*

*Kuhn, Thomas S.; Hacking, Ian*

#### **The structure of scientific revolutions**

4. ed. ; 50th anniversary ed. : Chicago : The University of Chicago Press, 2012 - xlvi, 217 s.

ISBN:978-0-226-45812-0 LIBRIS-ID:13429258

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