



**Karolinska  
Institutet**

Course syllabus for

## **Theory of Science, 2.5 credits**

Vetenskapsteori, 2.5 hp

This course syllabus is valid from spring 2025.

Please note that the course syllabus is available in the following versions:

Spring2020 , Spring2021 , Spring2022 , Spring2023 , Spring2025

Course code	4FH090
Course name	Theory of Science
Credits	2.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Public Health Sciences
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Global Public Health
Decided by	Utbildningsnämnden PHS
Decision date	2018-10-31
Revised by	Education Committee GPH
Last revision	2024-10-11
Course syllabus valid from	Spring 2025

## **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.

## **Objectives**

The aim of this course is that the student should be able to identify, discuss and reflect on scientific theoretical considerations in public health practice and research.

On completion of the course, the student should be able to:

- Describe different ways in which theory is applied in public health sciences.
- Identify and present scientific arguments concerning different views on knowledge and evidence as well as to be able to relate these arguments to choice of method and theoretical framework.
- Identify and discuss the Sustainable Development Goals in Agenda 2030 in relation to public health science theory
- Reflect on the authority of scientific knowledge and its basis and to critically examine scientific

debates in the public health sciences.

## Content

In the course, examples of theories in the public health sciences are presented and analyzed. The link between theory and methodological choices is discussed. The learning in the course is based on a reflective attitude to public health science, being both a multidisciplinary and an interdisciplinary field of knowledge. The student will discuss and learn more about the following:

- Issues in philosophy of science with relevance to the public health research
- Selected theoretical frameworks and central concepts in public health such as normality, diagnosis, institution and actors
- Theoretical and methodological aspects of studying social determinants of health
- Possibilities for integration of the Sustainable Development Goals into public health theory

## Teaching methods

The pedagogical approach adapted in the course includes active participation during all of the course's components. Different types of instruction and technologies, digital and in the classroom, will be used. Lectures, discussion and collaboration in small groups as well as peer assessments will be combined in the course's different topics.

## Examination

Examination of the course's intended learning outcomes will be performed through:

- submission of a written assignment applying concepts of philosophy of science and
- independently writing an essay where a number of theoretical concepts are defined and used in a critical analysis of an empirical case.
- attending mandatory workshops and seminars and giving peer feedback to other class participants.

### Compulsory participation

Attendance of workshops on philosophy of science, a literature workshop, and an applied theory workshop is compulsory. The examiner assesses if and, in that case, how absence from compulsory parts can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the examiner's instructions, the student's results for each respective part will not be registered. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

### Limitation of number of occasions to write the exam

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has not passed the exam after four participations he/she is encouraged to visit the study advisor. If the student has failed six examinations/tests, no additional examination or new admission is provided.

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.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

## 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 Committee for Higher Education.

## Literature and other teaching aids

### Mandatory literature

Additional publications will be added.

*Koch, Lene.; Vallgård, Signild*

#### Research methods in public health

1. edition. : Copenhagen : Gyldendal Akademisk, 2008. - 298 p.

ISBN:978-87-628-0794-5 LIBRIS-ID:12334668

[Library search](#)

*Malterud, K.*

#### Theory and interpretation in qualitative studies from general practice: Why and how?

Scandinavian journal of public health, 2016

URL: [Theory and interpretation in qualitative studies from general practice: Why and how?](#)

### Recommended literature

Additional publications will be added.